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WINTER PROPANE SHORTAGES

HEARING

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

ONE HUNDRED THIRTEENTH CONGRESS

SECOND SESSION

ON

SHORT ON GAS: A LOOK INTO THE PROPANE SHORTAGES THIS WINTER

MAY 1, 2014

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WINTER PROPANE SHORTAGES

THURSDAY, MAY 1, 2014

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 2:39 p.m. in room SD–366, Dirksen Senate Office Building, Hon. Mary L. Landrieu, chair, presiding.

OPENING STATEMENT OF HON. MARY L. LANDRIEU, U.S. SENATOR FROM LOUISIANA

The CHAIR. Good afternoon, everyone. Welcome to our panel, Short on Gas: A look in to the propane shortages this winter.

I really want to begin by thanking Senator Al Franken and Senator Tammy Baldwin for bringing this issue to the attention of this committee. They have been absolutely strong and determined advocates to try to find out, you know, what happened in the shortage, how it could be prevented. I'm sure there's some very good solutions that will be discussed today.

Let me thank my Ranking Member, Senator Murkowski, for agreeing to this hearing as well because I know it's a concern to her.

I'm going to give a very short opening statement, turn it to the ranking member and then ask if you have brief opening statements. Then we'll go right into the panel.

Propane is best known in Louisiana for barbeques and football tailgates, but thousands of North Louisianans rely on propane for very common uses. But millions of Americans rely on it to heat their homes and to keep them warm, to prepare meals during winter months. Last winter was one of the harshest and coldest on record with temperatures reaching as low at 40 to 60 degrees below zero.

Many of the places hardest hit were also hit by shortages of propane which nearly 5 percent of American families use. The average family in the Midwest had to pay an extra $120 this year. Families in the Northeast had to pay an extra $206. Restaurants across the Midwest were forced to either cook meals by microwave or close their doors and even some church services were canceled because they just simply could not keep the heat on.

With an abundant supply of petroleum we have here in the United States and North America we should not let this happen again. It's what this hearing is about. I look forward to how plentiful energy resources that we have can avoid leaving Americans in the cold.

Extreme weather and long winter demonstrates how weak and disjointed an inadequate energy infrastructure can have real harmful consequences for a million American families and our economy. These shortages last winter remind us that it will take significant investments in infrastructure to harness the full potential of this energy revolution. We need to better coordinate planning between the private sector and States as well.

So today's hearing will examine what caused the shortage, what can be done to ensure that it's not happening again, that this product that is so needed can be delivered safely and efficiently transported to consumers.

We'll begin with an important discussion to find solutions to this challenge. We have experts that work in every part of this energy supply chain from Louisiana, where our energy production and refining industry supports hundreds of thousands of high paying jobs, billions of dollars of new investments to Wisconsin's expanding retailers and marketers and Minnesota's diverse end user community. Their stories will all be told today.

I'm particularly interested to learn more about the Department of Energy's Quadrennial Energy Review which should help us to assess the many problems we face which could produce a new strategy for us in the future. Making sure we fix the problems that resulted last winter we'll be better prepared for the next.

It takes leadership. I thank Senator Murkowski for joining me in providing the leadership to this committee. And it takes very active and many members to contribute to our success. Many of us here in Congress have been concerned about this problem. We're looking for ways to fix it.

So let me now turn to my Ranking Member, Senator Murkowski, for her opening remarks.

I thank our panelists. I'll introduce you all in just a moment.

STATEMENT OF HON. LISA MURKOWSKI, U.S. SENATOR FROM ALASKA

Senator MURKOWSKI. Thank you, Madame Chair.

You have heard me say many times that when we speak about energy there's a few principles that I think are pretty uniform.

Energy needs to be affordable.

It needs to be accessible.

It needs to be clean.

It needs to be diverse.

It needs to be secure.

I think the propane issues that we saw in the Midwest this past winter, in my judgment, is a reminder to us that things can get pretty dire when energy is not abundant, when it's not affordable and when we just don't have those diverse supplies.

I think the witnesses that we have assembled before us today are a great panel. You represent the key figures in this difficult situation. We have the producers, the pipeline, the distributor, the regulator, the consumer and the policy official.

So I thank each of you for joining us here this afternoon. Look forward to your testimony. You each have part of the puzzle. Hopefully we can assemble a more complete picture today.

We've only had a short time that has passed. But I think we do know a few things with certainty. It's worthy of conducting an inventory before we get started.

At the most basic level we know that our propane inventories were low heading into the winter. As you have mentioned, Madame Chair, it was a pretty tough winter, pretty brutal all around. With low supply and high demand we saw our prices spike.

So we're back to basically the simple principles of supply and demand but as policymakers we know it's more than just Econ 101 that we need to be recognizing here as we consider options for preventing such issues from occurring again. We need to have a deeper understanding of the factors that were at play and not just which factors, but more how they interacted to produce the results that they did. We know about the record propane production, the record corn production, the record temperatures and the record prices.

So stepping back we also know that something else is true and that's the oil and gas renaissance is highlighting the Nation's need for more infrastructure, an infrastructure that is more closely adapted to today's new resource picture. Simply put, infrastructure is not just keeping pace with production.

Yet we have to add another layer of analysis on top of that because in some cases we've got a situation where we have plenty of pipeline or plenty of storage capacity but it's underutilized for certain reasons. We need to look at how that factors into the situation. It's entirely possible, indeed it's likely, that a completely satisfactory reckoning will prove to be elusive, perhaps for some time. There may be limitations on data.

There may be conflicting accounts. There may be some room for alternative, competing hypotheses, as they say in the Intelligence Committee. Not that that provides any solace to the millions of Americans in the Midwest who had to endure a pretty tough winter.

Not that uncertainty in the face of changing seasons and, of course, that next winter is going to come upon us just as the summer is coming upon us now. That's not particularly reassuring. So hopefully the testimony that we will have today will shed some light on, what I think we would agree, is an important topic.

So, thank you, Madame Chairman. Look forward to the contributions of our colleagues here this afternoon.

The CHAIR. Thank you so much.

Senator Franken, opening remarks?

STATEMENT OF HON. AL FRANKEN, U.S. SENATOR FROM MINNESOTA

Senator FRANKEN. Thank you.

I want to thank you, Madame Chair, for holding this hearing and also to the Ranking Member, Senator Murkowski.

The propane shortage that we experienced this winter has been a huge issue in Minnesota as well as in the rest of the Midwest and Wisconsin and in the Northeast as well. An estimated 250,000 Minnesota homes use propane. But this winter, as has been said, was one of the coldest ever recorded in Minnesota and demand for propane soared as supplies dwindled.

In early October propane was, on average, $1.67 per gallon. But at the height of the crisis it, I heard reports of prices as high as $6.67 per gallon.

When the propane crisis hit I traveled around Minnesota and heard from people hurt by the propane shortage.

I heard from homeowners who couldn't afford to heat their homes.

I heard from turkey growers who couldn't heat their barns.

That's why I asked for this hearing today to make sure the shortage doesn't happen again.

I'm very pleased that we will hear today from John Zimmerman, a turkey grower from Northfield, Minnesota, whom I invited to be here. We met a couple times on this issue. To explain what this shortage meant to Minnesotans.

In Minnesota I heard how the shortage hurt homeowners and farmers all over the State.

One woman in Pine County, who I talked to, went to bed in several layers of clothes, wrapped in an electric blanket. When she awoke, everything in her house, including her olive oil, was frozen. Her propane tank was empty. Thank goodness for the Salvation Army because the Salvation Army came through and partially filled her propane tank. They did that across our State.

This problem wasn't unique to Minnesota. It was the upper Midwest and the Northeast. Many rural families had to use their savings for propane or go into debt to buy propane to heat their homes and their farming operations.

That's why I was so determined, along with Senator Baldwin and other members, to get relief for those who were affected. I asked the Administration to release low income heating assistance to those in need. I was pleased when they did so.

I was also pleased that, following my request, FERC, the Federal Energy Regulatory Commission used its emergency authority to require more propane to be loaded onto the Enterprise pipeline for delivery north. We'll be discussing that. But the reason we are here today, that we're holding this hearing is to make sure that we're doing everything to avoid another propane crisis.

I look forward to the testimony of all our witnesses. I want to thank all of you for being here today. In particular, Mr. Zimmerman, John Zimmerman, I want to thank you and welcome you, on behalf of the committee. I'm very pleased that you're here today.

So, thank you, Madame Chair.

The CHAIR. Thank you very much.

Senator Baldwin.

STATEMENT OF HON. TAMMY BALDWIN, U.S. SENATOR FROM WISCONSIN

Senator BALDWIN. Thank you.

I want to also extend my appreciation to you, Chair Landrieu and Ranking Member Murkowski. You heard us raise this issue in any hearing that was remotely close to talking about propane. I'm glad we have one dedicated to this issue.

You know, in Wisconsin cold and snowy winters are a way of life. While we pride ourselves on making the most of winter, it's really

a harsh time of year. Every household in the State depends on having stable and affordable access to heat.

This year Wisconsin residents faced a crisis when the price of propane skyrocketed, and they couldn't access the fuel that they use to heat their homes and their businesses. Like Minnesota, approximately a quarter million Wisconsinites use propane to heat their homes and thousands more use propane to heat their small businesses. They rely on this in our cold and harshest weather.

Families facing the prospect of not being able to get propane this winter decided on things like whether to drain their water pipes to prevent them from freezing and go stay with relatives or neighbors. Many counties in the State of Wisconsin opened emergency warming shelters. Propane dealers were unable to get fuel to deliver to the families and businesses they've served for years and years. Resorts and businesses preparing for the peak snowmobile season—as well as the international crowd that comes to Northern Wisconsin for the skiing, for the Birkebeiner race—they were faced with really devastating choices like having to close their doors during some of the busiest and most profitable weeks of their year.

Many residents and business owners and propane dealers called my office to ask what could be done to avert the severe supply shortages and address the rapid price spikes. Over the many weeks during which this crisis unfolded I, along with my colleagues, called on numerous agencies to help struggling residents. While help came, it did not come easy and it did not come fast enough.

While I appreciate the good faith effort of the Administration, I think this crisis exposed two major flaws.

First, the Department of Energy and the Federal Government as a whole did not have the plans or the tools in place to respond to this crisis or anticipate it.

Second, this country didn't have adequate propane supplies in reserve to respond to a crisis of this magnitude.

So I look forward to working with my colleagues and this committee on legislation and other measures to address these problems to ensure Wisconsin residents and businesses don't have to worry about whether they can heat their homes and when another cold winter descends on the Midwest this next year.

I also want to thank our panel. We do have a wide range of experts, but I'm particularly pleased that Wisconsin is represented by Mr. Gary France.

The CHAIR. Thank you all very much.

Let's go right to our panel.

Ms. Melanie Kenderdine, Director of the Office of Energy Policy and System Analysis. This Department is here to give us unbiased energy analysis and supports the energy leadership in the Department.

Next we have Mr. Nils Nichols, Director of Division of Pipeline Regulation at FERC.

Mr. Andrew Black, President and CEO of Oil Pipe Lines. He represents the owners and operators of liquid pipelines.

Of course, then from Louisiana, Mr. Joe Cordill. He's been in the business. He's a veteran in the business, owner of Cordill Propane Service in Winnsboro, Louisiana. Thank you so much for being with us today.

Mr. Zimmerman has already been introduced, but I'm so interested to hear about the 47 million turkeys that grow with Minnesota Turkey Growers Association and how that could be affected by this crisis. None of us are going to have a good Thanksgiving next year if this doesn't get solved.

Mr. Gary France has already been introduced as well. Chairman of the National Propane Gas Association, so representing 3,000 companies which represent producers, wholesalers, transporters and retailers. So we're really looking forward to a great panel.

Let's start with you, Ms. Kenderdine, if we could.

STATEMENT OF MELANIE KENDERDINE, DIRECTOR, OFFICE OF ENERGY POLICY AND SYSTEMS ANALYSIS, AND ENERGY COUNSELOR TO THE SECRETARY, DEPARTMENT OF ENERGY

Ms. KENDERDINE. Great.

Thank you, Chair Landrieu, Ranking Member Murkowski and members of the committee. I appreciate the opportunity to be here today to discuss the Department of Energy's response to the propane crisis.

I would say that I grew up in the mountains of New Mexico where we heated our house with propane. We had similar problems when I was a young child. It was 25 below for a week. You're probably used to that in Alaska, Senator Murkowski, but so I am sympathetic to the problems of your constituents.

As you know during this past winter extremely low propane supplies in 3 major regions of the Nation, the Midwest, the Northeast and parts of the South, created public health and safety dangers and caused extensive disruption to some businesses. I will focus my remarks today on the propane problems in the Midwest.

Let me first note that the Obama Administration shares your concerns and was deeply engaged in responding to this crisis. We rapidly identified possible agency actions to address the crisis. We implemented a range of actions, had daily calls among agencies, States and the private sector to track the prices and the progress of the actions we took and maintained constant situational awareness.

A confluence of unusual events contributed to the crisis. These included the severe weather that you have already talked about, a large corn crop that requires propane for drying. I understand it was an unusually wet season over the summer, a very huge corn crop. So the drying occurred quite late in the season. There were also some market practices and conditions that both discouraged inventory builds and exposed distributers to price and supply risks.

DOE's authorities to deal with this type of crisis are limited. The most relevant statute is the Defense Production Act which grants the President the authority to promote the national defense. That is if there is a nationwide crisis. But it also allows us to maximize energy supplies by prioritizing contracts.

FERC has similar authorities. I think you'll hear about those today. FERC exercised these authorities in this crisis. DOE offered to intervene in support of FERC's actions. DOE also has extensive emergency preparedness and response responsibilities through the sector specific agency role it has for the energy sector.

As I noted this winter there was rapid and coordinated response by Federal agencies. This included data collection, analysis and dissemination to help inform and prioritize Federal and State response actions. That was DOE's role.

Issuing hours of service waivers for truck transport. That was the Department of Transportation.

Prioritization of propane pipeline shipments, that's FERC.

Efforts to assist distributors in getting loans, Small Business Administration.

The acceleration in distribution of LIHEAP funds from HHS.

As early as November DOE started participating in conference calls in the Midwest and Northeastern States regarding propane and home heating oil constraints.

In December, EIA warned of high prices, high demand and low inventories.

From January through March 2014, DOE participated in daily phone calls with State officials to both obtain and share information.

We also shared this information on daily interagency coordinating calls that was led by the White House.

Secretary Moniz made personal calls to CEOs of propane distribution companies urging them to prioritize propane deliveries and discussing problems and issues.

During the crisis DOE's Emergency Response Organization was activated. The ERO issued 19 spot reports and two comprehensive analysis reports. We briefed Governor's offices and the House and Senate staff at least twice. I think we briefed the Senate 3 times. The small and fragmented nature of propane markets and the limited availability of granular information inhibited situational awareness and could have hindered potential emergency responses.

To address these challenges EIA offers funding for States to participate in the State Home Heating Oil and Propane Program or SHOPP. From October to mid-March States participate in weekly calls to retail heating oil and propane outlets. EIA releases these data which are closely watched by interested parties.

Trade associations including NASEO have subsequently hosted lessons learned workshops. With your permission I would like to insert for the record a summary from NASEO that identifies possible mid and long term items for your consideration.

DOE is also planning to conduct regional emergency workshops in the States on their energy assurance plans. In addition Secretary Moniz has asked the National Petroleum Council to conduct a study to enhance industry and government capabilities for addressing natural disasters.

Looking to the future the Quadrennial Energy Review launched by President Obama in January of this year will focus on energy transmission, storage and distribution infrastructure. Specifically the QER will analyze the reliability, flexibility and affordability of these infrastructures and make policy recommendations including executive and legislative actions to help ensure that America has an infrastructure that can enhance its economic competitiveness, environmental performance and energy security.

The CHAIR. Please try to wrap up, if you can.

Ms. KENDERDINE. Yes.

Thank you.

[Laughter.]

Ms. KENDERDINE. I do want to say one thing. We are for the QER, we have had two regional meetings already. We had that in Providence, Rhode Island and Hartford, Connecticut. We are planning 13 more, one in Louisiana, one in Minnesota, North Dakota, Oregon, etcetera, etcetera. Propane will surely be an issue that we discuss in those regional meetings. Thanks again.

[The prepared statement of Ms. Kenderdine follows:]

PREPARED STATEMENT OF MELANIE KENDERDINE, DIRECTOR, OFFICE OF ENERGY POLICY AND SYSTEMS ANALYSIS, AND ENERGY COUNSELOR TO THE SECRETARY, DEPARTMENT OF ENERGY

Thank you Chair Landrieu, Ranking Member Murkowski, and Members of the Committee. I appreciate the opportunity to be here today to discuss the Department of Energy's response to the propane shortages in the Midwest and New England this winter. I am the Director of DOE's Office of Energy Policy and Systems Analysis as well as the Energy Counselor to the Secretary.

Madam Chair, Senator Murkowski, as you know, during this past winter extremely low energy supplies in three major regions of the nation (the Midwest, the Northeast and parts of the South) created public health and safety dangers and caused extensive disruption to some businesses. I will focus my remarks today on propane problems in the Midwest.

Let me first note that the Obama Administration was deeply engaged in responding to this crisis and took our responsibilities in this regard very seriously. We rapidly identified possible agency actions to address this crisis, implemented a range of actions identified by several agencies and state officials, had daily calls among agencies, states, and the private sector to track the crisis and the progress of the actions we took, and maintained constant situational awareness. I will discuss these actions in greater detail below.

PROPANE USE IN THE US

Propane use is a relatively small component of national energy consumption by energy content (1.7 percent in 2012). About 65 percent of propane is consumed in the industrial sector (including feedstocks and agriculture), roughly 2-3 percent for transportation with the remaining 32 percent used in the residential and commercial sectors. Propane is however a critical fuel for homes where it provides heating, serving roughly 5.5 million homes, largely in sparsely populated rural areas where energy infrastructures is more capital-intensive because of the distance between consumers. About half of these homes are in the Midwest and the Northeast (36 percent and 14 percent respectively).

Within PADD 2 (the Midwest) which has the highest percentage of residential propane use, propane is used to heat 7 percent of residential homes. Propane is used for residential heat in 4 percent of residences in PADD 1 (the East Coast).

The propane market is highly fragmented; 30 percent of the retail propane distribution market is held by three firms, with the remaining 70 percent market share held by another 3,500 firms. This fragmentation creates challenges for information awareness, data collection, and risk management. Bulk propane is typically delivered to centralized storage locations via rail, common carrier pipeline and truck. Propane is further delivered to local distributors by truck and then from these local distributors to residential consumers, also via truck. A large percentage of propane is delivered to the upper Midwest via pipeline.

CONTRIBUTORS TO THE CRISIS

As we know, in the winter heating season of 2013-2014 there were propane shortages, propane price spikes, record low inventories, and delivery limitations. Shortages were most acute in states at the tail end of distribution networks, and retail prices were highest in Iowa, North Dakota, South Dakota, and Minnesota in the Midwest; and Rhode Island and Vermont in the Northeast. A confluence of unusual events contributed to a severe situation in the Midwest, resulting in significant negative consequences for residential and agricultural customers.

Weather

There was also an unusually late and larger than normal use of propane for drying a large and wet corn crop, one of the major uses of propane in the Midwest. This larger than expected demand strained propane supplies going into the winter and reduced inventories at distribution terminals in the upper Midwest. No special refill measures were taken to replenish supplies that were depleted by crop drying demand, most likely due to NOAA forecasts and the relatively mild weather of the previous winter.

This was followed by a cold winter. It is important to note that actual temperatures were markedly different from expectations. NOAA did not forecast an unusually cold or intense winter, and the previous winter had been relatively mild; NOAA did indicate colder than normal winters might occur in "a small swath of the Northern Plains from northeast Montana into parts of the Dakotas and Minnesota." It also indicated "above-average temperatures in the Southwest, the South-Central U.S., parts of the Southeast, New England and western Alaska." As of March 6, 2014, compared to the previous winter, the Northeast was 13 percent colder, and the Midwest and South were 19 percent colder. The cold in these regions came early and persisted for an extended period of time

Market Conditions, Industry Practice

Throughout the buildup to the 2013/2014 winter heating season, propane spot prices were higher than in prior years and futures prices were significantly backwardated[1]. This discouraged market participants from building propane inventory. Also, approximately 60 percent of residential propane retail deliveries were conducted under fixed-price winter heating season contracts in the $1-$2/gallon gas range. This market structure generally serves both consumers and suppliers well under earlier normal market conditions. However, in light of developments this winter and high wholesale prices, suppliers were quickly exposed to significant price and supply risks.

Infrastructure Issues

The Cochin pipeline, which historically has supplied propane from Canada to the Midwest, was offline for maintenance in late 2013. The closure of the Cochin pipeline for part of November and December 2013 was important because it reduced opportunities to refill propane stocks during the interim time period between crop drying and the onset of peak winter season. Additionally, the Hess natural gas processing and fractionation facility in Tioga, ND was offline due to expansion work. These outages were publicized before they occurred, but as noted, propane re-supply was challenging.

Large draws on storage for crop drying use were not replaced before the onset of cold winter weather because market conditions did not support building inventory. The low inventories combined with cold weather were key physical triggers of events. Resupply was made more difficult by the temporary closure for maintenance of the Cochin pipeline and the inability to reverse flow on other pipelines that flow north to south, moving propane from the Midwest to the U.S. Gulf Coast. However, the significant flexibility of the trucking distribution system, especially the effective Department of Transportation (DOT) actions to exempt truck drivers from certain restrictions, proved key in facilitating propane resupply to the Midwest during the height of the shortages. The Federal Energy Regulatory Commission's (FERC) action to prioritize pipeline movement of propane during the height of the shortage added flexibility that was not available normally.

CONSUMER IMPACTS AND COMMERCIAL RESPONSES

According to EIA data, between December 2013 and January 2014, residential propane prices in the Midwest more than doubled from an average of $2.08 per gallon on December 2, 2013, to $4.20/gal on January 27, causing significant hardships to propane consumers. By February 3, prices had dropped to $3.83/gal and by March 3 to $2.78/gal.

Propane prices at Mont Belvieu, TX and Conway, KS, the major propane trading hubs on the U.S. Gulf Coast and in the Midwest, respectively, have historically been within pennies of each other. In late January the price of propane at Conway reached a record $2.97/gal above the price at Mont Belvieu. This differential sent a strong signal to producers and distributors, and market participants responded by moving additional supplies northward via pipeline (but also via truck from Mont

[1] Backwardation—A market where the price for nearby delivery is higher than for further forward months. The opposite of backwardation is contango

Belvieu to the Midwest). High prices in New England also attracted incremental global supplies via ship.

DOE AUTHORITIES

DOE's authorities to deal with this type of crisis are limited. The most relevant statutory authority is the Defense Production Act (DPA), which grants the President the authority to prioritize contracts deemed "necessary or appropriate to promote the national defense," as well as the authority to prioritize contracts necessary to maximize domestic energy supplies. DPA authorities have been delegated to multiple agencies by the President, including DOE and the Department of Commerce (DOC). These authorities overlap with the FERC's authority to prioritize certain pipeline shipments under the Interstate Commerce Act, and with the Surface Transportation Board's authority to prioritize rail shipments under the ICC Termination Act of 1995.

DOE does however, have extensive interagency coordination responsibilities through its roles as the Sector Specific Agency as outlined in Presidential Policy Directive (PPD)-21, the Emergency Support Function-12 (ESF-12) in support of the National Response Framework, and through the information and expertise it provides to the National Preparedness function as outlined in the PPD-8.

These activities focus on a range of efforts from preparedness to long term recovery from incidents or events. While engagement with industry addressed policies, practices, and procedures to enhance the reliability, security, and resilience of their systems, anti-trust laws limit the types of discussions surrounding market issues. During this propane event, DOE was intensely engaged with industry via daily calls with associations and one-on-one calls with specific companies.

TIMELINE OF ACTIONS

As I noted earlier, there was a rapid and coordinated response by Federal agencies that included DOE, DOT, FERC, the Environmental Protection Agency, DOC, the Department of Labor and the Department of Health and Human Services. Federal actions included data collecting and dissemination (DOE) in order to help inform and prioritize Federal and state response actions, issuing hours of service waivers for truck transport (DOT), prioritization of propane pipeline shipments (FERC), and acceleration of Low-Income Home Energy Assistance Program (LIHEAP) funds availability (HHS).

Several offices in the Department of Energy were engaged in responding to the crisis, including the Office of Electricity Delivery and Energy Reliability (OE) and its sub-office the Office of Infrastructure Security and Energy Restoration (ISER), Office of Fossil Energy (FE), the Energy Policy and Systems Analysis Office (EPSA), the Energy Information Administration (EIA) and the Office of the Secretary. During the crisis, DOE's Energy Response Organization[2] (ERO) was activated. This organization played a key data gathering and reporting role and regularly reached out to States, industry, Interagency and intradepartmental partners. Starting in January, 2014, the ERO Communications and Situation Reporting Team issued 19 Spot Reports and two comprehensive analysis reports, and provided inputs to three Congressional Staff updates, and two briefs for the Department's senior leadership; it also generated daily consolidated situational reports. The DOE ERO Energy Restoration Team, comprised of industry, interagency, and DOE representatives, held daily calls with States, industry associations, and Federal partners.

These calls served several purposes: to inform senior leadership about the propane situation, to identify federal assistance where appropriate, to share information with the states, particularly data on product availability, and to inform federal efforts to address the situation.

The following timeline shows DOE's involvement during the propane crisis:

- November 2013—Crop drying tightens markets to lowest propane stock in PADD 2 in five years;
- November-December 2013—The Cochin Pipeline was taken offline for maintenance.

[2] The DOE ERO resides in the Office of Electricity Delivery and Energy Reliability (OE) managed by the Infrastructure Security and Energy Restoration (ISER) Division, with support from OE's Energy Infrastructure Modeling and Analysis Division (EIMA), as well as, DOE Energy Information Administration (EIA), Fossil Energy (FE), Energy Policy and Systems Analysis (EPSA), General Counsel (GC), Congressional and Intergovernmental Affairs (C-IGA), and Public Affairs (PA), among others.

- November 2013—DOE's Office of Infrastructure Security and Energy Restoration (ISER), began participating in conference calls with Midwest and Northeast states regarding propane and home heating fuels constraints in November 2013.
- Mid-December 2013—There is a large gas storage withdrawal, raising prices on gas supplies from which propane is produced;
- December 12, 2013—DOE's EIA reports that "propane demand hits a record high for November, when propane consumption hit levels typically seen in January or February when the winter heating season hits its peak. . .propane inventories in PADD 2 (the Midwest) were at their lowest level for November since 1996
- January 2014—In early January, the polar vortex affects much of the U.S. The upper Midwest was hit especially hard;
- January 15, 2014—DOE's EIA publishes a This Week in Petroleum article on the impact of cold weather on propane demand, as Midwest propane markets tightened further on cold weather, noting the continued low temperatures and regional supply disruptions.
- January 27, 2014—DOE's Energy Response Organization (ERO—managed by OE) is activated to an Enhanced Watch/Monitor posture to determine industry and state actions and assess if there are any requests for DOE assistance. The Situation Report Team begins issuing daily internal reports and holding regular calls with industry associations and States.
- January—March 2014—DOE participates in phone calls with Midwest State energy offices on January 10, 17, 24 and 29, February 5, 12, 21, 28, and March 14 to share information on Federal actions and to obtain information on propane supply issues and State actions.

  —Information from these calls and other calls with state officials is shared on daily interagency coordinating calls, including with the White House, which commences on January 27 and continues daily throughout February and early March.

- January 31, 2014—DOE's EIA issues its first Propane Situation Report.
- February 5, 2014—DOE's EIA issues its second Propane Situation Report.
- February 2014—In early February the National Propane Gas Association petitions FERC to use its prioritization authorities.
- February 6, 2014—DOE and FERC staff discusses prioritization authorities and DOE offers to intervene with FERC in support of its use of this authority.
- February 7, 2014—FERC utilizes its prioritization authorities on the Enterprise TEPPCO products pipeline after discussion with other agencies;
- Late February/early March 2014—The spread between Conway and Mont Belvieu spot propane prices starts to narrow;
- February 26, 2014—DOE's ERO deactivates, though DOE staff remain in close communication with State, industry, and Federal partners. Calls to all stakeholders continue until improvements in both supply availability and moderating prices persisted. The final spot report is issued.
- March 12, 2014—DOE's EIA issues its third and final Propane Situation Report.

DOE also led the following actions:

- Conference call with Governor's offices and numerous individual calls to Governor's offices
- Senate and House briefings: January 28 (EIA, OE), March 3 (EIA)
- Senate Briefing: January 31 (WH, FERC, DOT, EIA, OE)
- Calls to large scale marketers, wholesale retailers, dealers, pipeline companies, and associations.

LESSONS LEARNED AND NEXT STEPS

DOE's focus on data and communication provided critical feedback loops for actions taken, their effectiveness, and critical information to states, localities, distributors and other industry actors. The immense flexibility of the trucking distribution system, especially with the effective DOT actions to exempt truckers from certain restrictions, was a key element in supplying the region during the height of the shortages. Also, FERC's action to prioritize pipeline movement of propane during the height of the shortage added flexibility.

The small and fragmented nature of propane markets and the limited availability of granular information, however, limited situational awareness and could have hindered potential emergency responses. In order to address these challenges, EIA will offer funding support for States to participate in the State Heating Oil and Propane

Program (SHOPP). The State Energy Offices that collaborate with EIA to conduct this survey use the aggregated data to monitor the heating fuel markets in their States as well as to develop and maintain programs that provide financial assistance for heating costs to low-income residents. At least eight additional states have expressed interest in participating this coming winter. DOE has the capability to develop enhanced data gathering and analysis capabilities for this market segment.

Associations, including the National Association of State Energy Officials and the National Gas Propane Association, are hosting lessons learned meetings to identify steps that forward to prevent shortages from happening in future years. OE is planning to conduct regional exercises with states on their Energy Assurance Plans and how these plans can best prepare states to respond quickly in a crisis situation, such as the propane crisis. In addition, Secretary Moniz asked the National Petroleum Council to conduct a study on emergency preparedness to enhance industry and government capabilities for addressing natural disasters that have the potential to disrupt the delivery of natural gas, propane, and other fuels to consumers. Looking to the future, the Quadrennial Energy Review, launched by President Obama in January of this year, will address energy infrastructure. In particular, it is focused on energy transmission, storage, and distribution (TS&D) infrastructure, and will include regional fuel resiliency studies, inspired in part by the propane situation as well as by the aftermath of Hurricane Sandy.

As our review and surveillance of last winter's propane problems for the Midwest found, propane transmission pipelines, storage, and distribution all played roles in the challenges and solutions to the events that occurred. In looking at TS&D infrastructure, the Department will consider the challenges of the propane markets as each of these infrastructure elements played a role in the challenges and solutions to the events that occurred this past winter.

On April 21, 2014, DOE, acting on behalf of the Interagency QER Task Force, held a QER public meeting in two locations in New England: Providence, RI and Hartford, CT. Secretary Moniz, elected officials, more than 20 invited panelists, and members of the general public participated in the meeting. A key topic discussed at the meeting was the recent propane shortage in New England. Representatives of the propane industry gave presentations and participated in the initial panel discussion. These representatives provided important perspectives and suggestions about how to address the New England propane situation in future years. Their written statements are available at the DOE website at www.Energy.gov/QER. DOE will also hold meetings in North Dakota, Chicago, and other Midwestern locations, where it will hear from stakeholders on rail, barge and truck transport of fuel. Propane and related issues will also be a major topic of discussion at these meetings.

The first QER will examine transmission, storage and distribution infrastructure, specifically assessing its reliability, flexibility, and affordability in order to make policy recommendations including executive and legislative actions as appropriate, priorities for research and development investments, and identify analytical tools and data needed to support further policy development and implementation. These recommendations will help ensure America has an infrastructure that can enhance U.S. economic competitiveness, environmental performance, and energy security.

CONCLUSION

Madam Chair, Ranking Member Murkowski and Members of the Committee, I appreciate the opportunity to discuss these important issues. Please be assured that should conditions that tend to threaten propane supply arise during future winter seasons, the Administration and appropriate Federal agencies will work aggressively and swiftly to ensure that we address the needs of the American public. I would be happy to answer any questions you may have.

The CHAIR. Thank you.

Mr. Nichols.

STATEMENT OF NILS NICHOLS, DIRECTOR, DIVISION OF PIPELINE REGULATION, FEDERAL ENERGY REGULATORY COMMISSION

Mr. NICHOLS. Madame Chair, Ranking Member Murkowski and members of the committee, thank you for this opportunity to testify here today. The comments are my own and do not necessarily reflect the views of the Commission.

I'd like to begin with a brief overview of the Federal Energy Regulatory Commission and the oil and product pipeline.

The CHAIR. Can you speak into your mic a little bit? Just pull it closer to you. Thank you so much.

Mr. NICHOLS. Certainly. If that's not good let me know.

I'd like to begin with a brief overview of the Federal Energy Regulatory Commission and the oil and product pipeline program and follow up with a summary of the emergency actions that we took this past winter with regard to propane.

The Commission is an independent regulatory agency. As such it exercises only the authority that Congress has delegated to it in statutes such as the Federal Power Act, the Natural Gas Act and the Interstate Commerce Act.

The Commission has approximately 1,500 employees. The Oil and Product Pipeline Regulation Program has a total of about 15 employees or 1 percent of that small agency.

Oil and product pipelines are common carriers which mean they provide service to anyone who meets the terms and conditions of their tariff who wishes to ship on the pipeline. The pipelines typically do not own the products they ship. Their role is to provide a transportation service. The pipelines provide the service pursuant to tariffs that must be filed with the Commission.

We regulate the interstate rates and terms and conditions of service pursuant to which those services are offered. The Interstate Commerce Act does not provide the Commission with construction or abandonment authority over oil and product pipelines. This is in contrast to the authority that Congress has given us in the Natural Gas Act.

The Interstate Commerce Act also prohibits us from revealing shipper information concerning the nature, kind, quantity, destination or routing of any property tendered or delivered to the pipeline. The Interstate Commerce Act also does not afford the Commission jurisdiction over terminal facilities that are not necessary or integral to the pipeline transportation function.

The filings that we process are essentially administrative hearings that are typically conducted on a paper record. Interested entities may intervene and participate in those proceedings. We have many, many parties who do. Our rulings, of course, may be appealed to the court system.

Turning to the events of this past winter.

On February 7, 2014, which was a Friday, the Commission determined that an emergency existed. It did so, in part, through our communications with other agencies and also from Members of Congress, State Governors and so forth.

On February 7th, we issued an order directing Enterprise TE Pipeline Products Company, which operates a batch pipeline, meaning it ships many products other than propane, from Mont Belvieu, Texas which is down in the Houston area into the Midwest and Northeast. We ordered them to provide 7 days of priority treatment for propane shipments.

This is an authority we had not used before. It dates back to approximately 1920 and was apparently directed at railcar shortages following World War I.

The following Monday, February 10th, I conducted a dispute resolution proceeding because we did not have time to construct a record on which to base our action because we acted so quickly. We wanted to make sure that we weren't going to have unintended consequences such as depriving the region of jet fuel, motor gasoline or other substances that flow through that pipeline.

Thanks to the exceptional preparedness of the pipeline and the National Propane Gas Association we reached a satisfactory result in 3 hours. The parties submitted filings with the Commission reflecting their agreement that if we extended the emergency treatment of propane, of prioritization of propane, for an additional 7 days it would take care of the problem.

The next day the Commission issued an order approving that solution. So we extended the prioritization of propane for a total of 14 days.

My understanding is that approximately an additional 500,000 barrels of propane moved up the pipeline as a result of that action.

Thank you.

[The prepared statement of Mr. Nichols follows:]

PREPARED STATEMENT OF NILS NICHOLS, DIRECTOR, DIVISION OF PIPELINE REGULATION, FEDERAL ENERGY REGULATORY COMMISSION

Chairman Landrieu, Ranking Member Murkowski, and Members of the Committee:

My name is Nils Nichols and I am the Director of the Division of Pipeline Regulation within FERC's Office of Energy Market Regulation. I am here to discuss FERC's jurisdiction over propane and FERC's actions in response to the propane shortage that occurred this past winter.

FERC has jurisdiction over the transportation of oil and other petroleum products by pipeline. This jurisdiction is conferred by the Interstate Commerce Act. There are generally two types of oil pipelines that FERC regulates. One is pipelines transporting crude oil. The other is pipelines transporting a variety of refined oil products such as gasoline, diesel fuel, jet fuel, and natural gas liquids, which includes propane. Both types of pipeline are referred to as "oil pipelines."

The relationship between an oil pipeline and the shippers on the line is governed by the pipeline's FERC Tariff, which sets forth the pipeline's rates and its terms and conditions of service. Broadly speaking, FERC's statutory mandate is to ensure that a pipeline's rates are just and reasonable, and that it provides services in a manner that is neither preferential for anyone nor unduly discriminatory.

Turning now to propane itself, it is important to understand the scope of FERC's jurisdiction. First, FERC has no jurisdiction over the commodity propane, including its price. Second, FERC does not have jurisdiction over the storage or the marketing of propane. And finally, though FERC does regulate propane pipeline transportation, it does not have a role in the actual day-to-day pipeline operations.

As the Members of this Committee know, during this past winter, the supplies of propane in the Midwest and Northeast became critically low. In January, FERC Staff was contacted by representatives of the National Propane Gas Association who were concerned that propane supplies might actually run out in the Midwest and Northeast. The Association indicated in particular that Enterprise TE Products Pipeline Company, which is a pipeline that transports propane and other refined products to the Northeast and Midwest, might be able to transport enough propane to help alleviate the shortages if FERC could direct it to give propane shipments priority over the transportation of the other products it handles. The Commission Staff was also contacted by Enterprise and at that point encouraged Enterprise and the propane shippers to work informally to find ways to transport more propane within the terms of Enterprise's FERC Tariff.

At the same time, the Commission began participating in a number of ad hoc federal and state task forces that were organized to monitor the propane shortage situation and to explore possible solutions. FERC Staff engaged in phone calls with other federal agencies, agencies and officials in the affected states, as well as phone calls coordinated by the White House. FERC Staff also responded to inquiries from

this Committee, the House Commerce Committee, and Senators and Congressmen from the affected states.

Some pipelines serving the Midwest responded to the crisis with voluntary filings to be able to act under their FERC Tariffs to flow more propane to the affected areas. These filings were promptly approved by the Commission.

On February 6, 2014, the National Propane Gas Association and its members filed a request for emergency relief to direct Enterprise to temporarily provide priority treatment to propane shipments from Mont Belvieu, Texas to locations in the Midwest and Northeast. The Commission issued a notice on the same day and requested comments on an expedited basis. The next day, on February 7, 2014, the Commission determined that an emergency existed requiring immediate action and issued an order directing Enterprise to provide seven days of priority treatment for propane shipments to help alleviate the propane shortage. This action was taken under a section of the Interstate Commerce Act that gives FERC the power to act when it is of the opinion that there is an emergency requiring immediate action. This was the first time that FERC has exercised such authority under the Interstate Commerce Act.

In conjunction with the emergency order, FERC Staff conducted alternative dispute resolution discussions with the National Propane Gas Association and Enterprise TE Products Pipeline Company to determine if a longer-term, voluntary solution to the propane shortages could be achieved. As a result of these discussions, the parties submitted filings reflecting their agreement that the emergency order be extended for another seven days. The next day, on February 11, 2014, the Commission issued an order extending priority treatment for propane shipments for an additional seven days. The Commission's and stakeholders' actions appear to have been successful, as no further action by the Commission with respect to propane supply was required this past winter.

I appreciate the opportunity to testify before this committee on behalf of FERC and would be happy to answer any questions that you have.

The CHAIR. Thank you very much.

Mr. Black.

STATEMENT OF ANDREW J. BLACK, PRESIDENT AND CEO, ASSOCIATION OF OIL PIPE LINES (AOPL)

Mr. BLACK. Thank you, Madame Chair, Senators.

I'm Andy Black, President and CEO of the Association of Oil Pipe Lines. Our members operate 185,000 miles of pipelines delivering crude oil, refined products such as gasoline and diesel and natural gas liquids such as ethane and propane. In 2013 we transported 14.1 billion barrels of crude oil and products for delivery to American consumers, workers, farmers and homeowners.

Our businesses deliver energy products on behalf of shipping customers. Like FedEx or UPS, we generally do not own the products that we ship. We earn revenue by making shipments for customers. The more products pipelines deliver, the more pipelines earn. So we have every financial incentive to make deliveries including deliveries of propane when they are requested by shipping customers.

This winter when local propane supplies were a concern, pipeline operators were asked to help. They responded. Operators ran their dedicated propane lines at maximum capacity. Operators of lines with multiple different products worked with customers to voluntarily defer shipments of other products so that propane shippers could ship more propane. Pipeline operators participated fully in the DOE efforts during the crisis and fully complied without challenge to orders from FERC to prioritize propane shipments.

The events of this winter were not the result of insufficient pipeline infrastructure nor of insufficient national propane supply. There's enough pipeline capacity to transport propane supplies to where they are needed as long as the owners and the shippers of

the propane adequately plan for their winter demand prior to winter.

As an example, this first chart shows the 48,000 barrels per day Mid American pipeline western leg servicing Minnesota. The horizontal line across the top represents the pipeline's capacity and the blue line that dips down like a U shows deliveries requested by and made for propane shippers. As you can see propane shipments were at system capacity in December 2013 and January 2014.

However, shipments from February to October of last year were far below the capacity of the pipeline. On average, shippers use only 32 percent of this pipeline's capacity. That means nearly 12 million barrels per day of propane capacity on a pipeline went unused by propane shippers. That's 12 million more barrels of propane than Minnesota farmers and homeowners could have used last winter, but it wasn't requested or shipped by propane marketers and distributors.

As another example, unutilized propane capacity is similar in Wisconsin. This chart shows the Eastern leg of the MAPL pipeline servicing Wisconsin propane terminals. It averages only 50 percent utilization meaning that on average, 9.5 million barrels of propane capacity on this pipeline goes unutilized by propane distributors and marketers each year.

Volumes of propane stored in the Midwest were also low throughout 2013. This third chart shows propane storage volumes in the Midwestern States of PADD–2, the mid yellow,—the wide yellow band is the range of storage levels over the last 10 years. The blue line at the bottom of the yellow band is the monthly Midwestern propane balance last year. On the right you can see the balances last year were below average in the fall as farmers use additional propane to dry their crops and then homeowners continue to use propane supplies to heat their homes in the winter. However, this also shows that inventories last year were low back in March, April, May and throughout the summer. That means that local propane distributors went into the fall with low balances at a time when they could have been using the millions barrels of spare pipeline capacity to replenish their stocks and get ready for winter.

Two other points.

AOPL has no position on the issue of exporting energy commodities such as propane. Our role is simply to ship products within the U.S. on behalf of shippers. However as this chart shows, we see that U.S. propane production is at its highest level in 10 years.

The country has bountiful new levels of crude oil and natural gas and other products such as propane derived from them. Our members are working diligently to expand and reroute our pipeline infrastructure to connect to these new supplies.

Next, increased U.S. production of propane has led to shifts away from importing propane into the U.S. from Canada. The Cochin pipeline shipping propane and other liquid gas products from Alberta down through the upper Midwest has seen a drop in usage from 60 percent down to 22 percent annual utilization. With propane customers in Minnesota and elsewhere using only 22 percent of Cochin its owner is in the process of converting it to a better use, to other service. With the spare capacity we saw earlier in the

other lines in the region we believe there is certainly sufficient remaining pipeline capacity for propane to meet regional needs.

The simplest and most straightforward solution to prepare for next winter is for distributors and marketers to use the millions of barrels of spare pipeline capacity they have available to them. Also, the community may wish to discuss ways to encourage development and use of local and regional storage capacity and options to encourage individuals to fill their propane tanks before winter. Pipeline operators look forward to shipping as much propane as they can to those customers and to any other locations in the future.

Thank you.

[The prepared statement of Mr. Black follows:]

PREPARED STATEMENT OF ANDREW J. BLACK, PRESIDENT AND CEO, ASSOCIATION OF OIL PIPE LINES (AOPL)

I am Andy Black, President and CEO of the Association of Oil Pipe Lines (AOPL). AOPL represents the owners and operators of energy liquids pipelines. I applaud the Committee for its continued interest in energy infrastructure, and for holding this hearing. Thank you for the opportunity to discuss the role of pipeline infrastructure in propane supply.

Liquid pipeline infrastructure across the U.S. benefits American consumers and workers. Pipelines are the safest and least-expensive mode of energy transportation over land. During the recent local propane shortages, pipeline operators worked with propane shippers and the federal government to facilitate the delivery of additional propane supplies. Liquid pipeline operators are expanding the nation's pipeline network to move energy from new production and storage areas to customers in traditional demand areas as well as developing markets. Although new or expanded capacity is needed and will be needed to support the tremendous growth in U.S. energy supplies, pipeline capacity generally is sufficient, especially during off-peak times, to ensure that fuel supplies such as propane and motor fuels are adequate to meet domestic seasonal needs. Government can help ensure the availability of adequate pipeline infrastructure by avoiding unnecessary delays in regulatory approvals and continuing to provide a transportation rate structure that supports new pipeline investment.

LIQUID PIPELINE INFRASTRUCTURE BENEFITS AMERICAN CONSUMERS AND WORKERS

Liquids pipelines transport the crude oil, refined products, and natural gas liquids that American consumers and workers use every day to lead their lives and fuel their jobs. In 2012, liquid pipeline operators delivered more than 14.1 billion barrels of crude oil and petroleum products across more than 185,000 miles of pipeline in the U.S.

Liquids pipelines transport crude oil from production areas across the U.S. and Canada to storage hubs and refineries. Separate liquids pipelines transport refined petroleum products (like gasoline, diesel fuel, jet fuel, and home heating oil) from refineries to local distribution terminals and other demand markets. Still other liquids pipelines deliver natural gas liquids products (like ethane, butane, and propane) from production areas, to and from fractionation facilities, and on to U.S. consumers, manufacturers, and industrial users.

Americans benefit from liquids pipelines to heat their homes, fuel their vehicles, dry their clothes, harvest and dry their crops, manufacture consumer goods, and more. Nearly every gallon of gasoline American consumers put into their vehicles travels at some point through a liquids pipeline. Liquids pipelines allow American consumers to benefit from U.S. crude production regions in Texas, North Dakota, California and states in between. Liquids pipelines are transporting growing supplies of natural gas liquids from new production areas in North Dakota, Pennsylvania, Ohio, Oklahoma and Texas to chemical and plastics manufacturing facilities in the U.S. and creating new, good-paying jobs for American industrial workers. Pipeline construction creates good-paying jobs, as well.

RECENT PROPANE ISSUES

The importance of pipelines and other midstream transportation infrastructure was underscored by what happened last winter in propane markets. Propane inven-

tory levels in the Midwest began last fall at abnormally low levels, according to the Energy Information Administration (EIA)[1]. This set the stage for some regional supply difficulties last winter. Large supplies of propane were needed last fall to dry crops after a harvest that was late, abundant, and often wet. Following this increased agricultural demand, the Midwest and Northeast then needed considerable supplies of propane for heating during a winter that was early, long and often very cold. In fact, the NOAA data shows that this last winter was the fifth coldest in their 115 years of record keeping. The result was more local and regional concerns with propane supply than has been the case in many recent years.

A network of liquid pipelines delivers propane and other natural gas liquids from storage hubs in Texas and Kansas to distribution facilities across the South, Midwest, Upper Midwest, and the Northeast. The Dixie dedicated propane pipeline runs from Texas across the south to North Carolina. Enterprise TE Products Pipeline (TEPPCO) delivers refined petroleum products and natural gas liquids, including propane, from Texas north to southern Illinois and then east to Ohio, before continuing on as a propane pipeline into Pennsylvania and New York.

The Mid-America Pipeline (MAPL) delivers propane and natural gas liquids from a storage hub in Kansas to Wisconsin and Minnesota. The Kinder Morgan Cochin pipeline delivers propane and natural gas liquids southward from Canada down across the Upper Midwest arcing below Lake Michigan and then up into the State of Michigan. ONEOK Partners also operates natural gas liquids pipelines in the Midwest.

Pipeline operators generally do not own the products shipped on their systems. Like FedEx or UPS delivering the packages of others, pipeline operators transport energy products on behalf of shippers who choose if and when to ship products, what product to ship, decide on the quantity of their requests for pipeline transportation service, own the products being shipped, and accept the product when it is delivered. A pipeline earns revenue by collecting a rate for the transportation services it provides to shippers. The more pipelines deliver, the more money pipelines earn. Thus, pipeline operators have every financial incentive to make deliveries, including deliveries of propane, when they are requested by shipping customers.

The rates, terms and conditions of shipping on an interstate liquid pipeline are regulated by the Federal Energy Regulatory Commission (FERC). Such matters as how much a pipeline charges a shipper to make a shipment, the order in which a product is shipped relative to other shippers' products, and the equitable apportionment of transportation capacity when a pipeline system is constrained are set forth in a tariff on file with the FERC.

This past winter, when local propane supplies fell, concern naturally focused on the reasons and potential solutions. Pipeline operators were asked to help, and they responded. TEPPCO asked shippers of certain refined products on its pipeline system to voluntarily defer shipments so that propane shippers could ship propane from Mont Belvieu, Texas, and those shippers generally cooperated in light of the unusual circumstances. ONEOK filed multiple tariffs at FERC to facilitate the delivery of additional propane supplies from Conway, Kansas to markets. Kinder Morgan submitted a tariff filing at FERC to facilitate the shipment of additional propane supplies and alerted shippers about available capacity on the Cochin Pipeline from Alberta. Meanwhile, Enterprise's MAPL, a dedicated propane pipeline, continued to run at maximum capacity. When officials of the Department of Energy initiated regular calls to coordinate efforts to ease the crisis, AOPL participated fully and worked with its members to help address supply and transportation issues.

FERC issued a one-week emergency order[2] that was effective February 7-14, directing TEPPCO to prioritize shipments of propane from Mont Belvieu, Texas to locations in the Midwest and Northeast in order to help alleviate propane supply concerns in those regions. TEPPCO voluntarily agreed to a one-week extension of the emergency order through February 21. TEPPCO complied with the emergency orders and prioritized the propane transportation requests made by its shippers during this period.

PIPELINE INFRASTRUCTURE IS AVAILABLE FOR PROPANE DELIVERY

The propane shortages during the winter of 2013-2014 were not the result of inadequate pipeline infrastructure, nor were they the result of inadequate propane sup-

[1] EIA Propane Situation Update, April 22, 2014,http://www.eia.gov/pressroom/presentations/propane_briefing_04222014.pdf

[2] See Enterprise TE Products Pipeline Company, LLC, 146 FERC § 61,076 (2014) ("Order Directing Priority Treatment"); Enterprise TE Products Pipeline Company, LLC, 146 FERC § 61,085 (2014) ("Order Extending Priority Treatment"). Effectively, the orders overrode the rules in TEPPCO's tariff on apportionment of pipeline capacity.

plies. There is enough pipeline capacity to transport propane supplies to where they are needed, so long as the owners and shippers of the propane adequately plan for their winter demand prior to the winter. The shipping capacity of propane pipelines runs from approximately 50,000 barrels per day each for the Cochin and Mid-America East and West pipelines, to as much as 160,000 barrels per day on the Dixie pipeline.

Figure 1* provides further background on the propane capacity and supply issues of this past winter in Minnesota as an example. The graph shows the 48,000 barrel per day capacity of the western leg of the MAPL pipeline, which serves southern Minnesota. The shaded yellow area shows historic average usage levels for the pipeline and the blue line shows the specific amount of propane requested and shipped on the pipeline.

While the pipeline has a capacity of 48,000 barrels per day, on a yearly average, MAPL West transports only 15,000 bpd, or 32 percent of the pipeline's capacity.[3] For all but a few weeks of the year during winter, customers ship only a fraction of the propane able to travel on the MAPL West pipeline. Numerically, that means about 11.8 million barrels of propane capacity goes unutilized each year by propane shippers.

Similarly, Figure 2 illustrates the capacity and usage of the MAPL East Blue pipeline serving Wisconsin. MAPL East Blue has a capacity of 53,000 barrels per day, but ships on average only 27,000 bpd.[4]

Similarly, this 50 percent utilization rate means that on average 9.5 million barrels of propane capacity on MAPL East Blue goes unutilized each year by propane shippers.

As discussed above, pipeline operators do not choose how much product is shipped on their pipeline or at which times shipments are made. A pipeline operator would prefer to run at or near 100 percent capacity all of the time. Instead, what drives pipeline utilization is the propane distributors and marketers who place orders for propane and decide how much and when they want their deliveries. As Figures 1 and 2 show, the demand for propane shipments by propane distributors and marketers falls dramatically during the spring and summer months. When there is plenty of time and space to take propane deliveries and stock up for peak fall and winter seasons, propane distributors and marketers are not taking full advantage of available pipeline capacity.

Figure 3 illustrates propane inventories in the Midwestern states, otherwise known as PADD-2 in Energy Department parlance.

The thin blue line reflects propane inventories during 2013, and the broader yellow zone shows the range of balances over the last 10 years. Figure 3 shows that inventories of propane stored in Midwestern states throughout 2013 were at the bottom of the range of historic propane balances and fell significantly after the heavy and late crop drying season.

Figures 1, 2 and 3 illustrate that a large amount of unused pipeline and storage capacity was available in 2013 and that propane distributors and marketers chose to maintain supplies at levels below average throughout 2013, leaving them vulnerable to what happened in the fall and winter of 2013. While it is difficult to predict the amount of propane necessary for an upcoming harvest and winter heating season, and recognizing that 2013 certainly was an extreme case, it is clear that in 2013 propane market participants chose not to fully utilize storage facilities in the Midwest, and chose not to utilize available pipeline capacity to stage propane inventories farther into the distribution chain (and thus closer to their propane customers) prior to the winter.

PIPELINE REVERSALS

Some are asking whether plans to reverse the flow direction of the Cochin pipeline will adversely affect propane supplies across the upper Midwest. The answer is no. Local demand for propane from the Cochin line has dropped precipitously in recent years. There is more than sufficient unutilized capacity in other nearby propane pipelines to make up the difference. Historically, the Cochin pipeline delivered light natural gas liquids from Alberta, Canada, down through North Dakota, Minnesota, Iowa and Illinois before looping south of Lake Michigan and extending into Indiana, Michigan and eventually Ontario, Canada. The 1,900 mile 12-inch diameter pipeline has an estimated system capacity of approximately 50,000 barrels per day operated with 31 pump stations and five U.S. propane terminals along its route.

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*All figures and charts have been retained in committee files.

[3] Enterprise Products Partners L.P, Apr. 2014.

[4] Id.

While Cochin was successful initially, the North American energy production boom changed shipping and market dynamics, reducing the U.S. demand for propane imported from Canada. Propane is a natural by product of oil and gas production. When oil or gas is produced, it comes out of the ground mixed together with other natural gas liquids such as propane, ethane and butane. Greatly increased oil and natural gas production in the Bakken fields of North Dakota, the Eagle Ford and Permian fields of Texas, the Marcellus shale region of Pennsylvania and other production areas across the U.S. has resulted in increased U.S. supplies of propane. The EIA recently reported that U.S. propane production topped 1.4 million barrels per day, higher than any time in the last ten years, as Figure 4 illustrates.

U.S. propane customers turned away from importing supplies of propane from Canada and began to purchase additional supplies of plentiful, less expensive U.S. propane instead. The result, as reported by the Minneapolis Star Tribune, is that the Cochin pipeline has been operating at only 22 percent of its annual capacity.[5] Figure 4 illustrates how the Cochin pipeline ran at nearly 60 percent of its capacity in 2000, but utilization steadily declined until it was running at only 22 percent of capacity in recent years.

With the Cochin pipeline so underutilized by propane customers along its route, the operator of the Cochin pipeline decided to reverse the flow of the pipeline to capture new market demand for U.S. natural gas liquid deliveries to Canada.

The MAPL West Blue propane pipeline into Minnesota itself has almost 12 million barrels of unutilized propane capacity each year. Thus, even with the Cochin pipeline converting from southbound propane service to northbound diluent service, propane pipeline infrastructure in the region is ready and able to handle Midwestern propane supply demand, if the propane industry chooses to utilize these pipeline systems ahead of winter.

AVOIDING PROPANE SHORTAGES IN THE FUTURE

Decisions about shipping propane and filling downstream storage are complex and involve many factors best explained by propane market participants. It is clear, however, that with increased utilization of existing storage and pipeline capacity, propane market participants could mitigate future supply concerns. The pipeline industry stands ready to accommodate any changes in supply planning patterns supported by propane market participants, should they elect to do so.

Pipeline operators and AOPL have a strong history of working with shippers and government before and during times of crisis so that American consumers and workers can continue to receive the products they need. After Hurricane Sandy produced local flooding and power outages causing reduced supplies of gasoline and other refined products in New Jersey, pipeline operators worked with government and local stakeholders to restore service. After Hurricane Katrina knocked out power for pipelines and caused concerns about supplies in Georgia, the Carolinas and mid-Atlantic, pipeline operators worked with government at all levels to return pipelines to service. These rare crises demonstrate the importance to Americans of maintaining a robust and reliable pipeline network.

PIPELINES ARE THE SAFEST, LEAST EXPENSIVE ENERGY TRANSPORTATION INFRASTRUCTURE

Pipelines are the least expensive, most reliable, and safest mode of transporting large volumes of energy liquids over long distances over land. In 2012 alone, 99.9998% of the crude oil, petroleum products, and natural gas liquids transported by pipeline reached their destination safely. As an example of the safety of pipelines compared to other transportation modes, the Final Supplemental Environmental Impact Statement completed by the U.S. Department of State for the Keystone XL pipeline found that alternative modes of transportation would result in 2.4 to 9.0 times more crude oil released to the environment each year compared to that pipeline. Denying the Keystone XL Presidential Permit and relying upon non-pipeline transportation infrastructure would result in the additional release of between 29,778 and 172,830 gallons of crude oil to the environment.

The safety record of pipelines is a natural outcome of the major financial investment pipeline operators make in pipeline safety each year. In 2012, pipeline operators spent at least $1.6 billion on pipeline integrity management evaluating, inspecting and maintaining their pipelines. The result is that over the last decade, liquid pipeline incidents are down over 60 percent and volumes released from pipelines are down over 45 percent.

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[5] David Shaffer, "Propane Industry Scrambles to Replace Supply from Major Pipeline," Star Tribune, Dec. 7, 2013.

While pipeline infrastructure is the safest mode of energy transportation, liquids pipeline operators remain focused on continuous improvement with the ultimate goal of zero incidents. Pipeline operators are undertaking a number of industry-wide initiatives to improve pipeline safety performance. In 2012, pipeline operators adopted a set of industry-wide safety principles, including the goal of zero incidents. Industry-wide, operator-led safety groups continue to develop new recommended practices and safety improvement tools.

In 2014, the liquid pipeline industry launched the Performance Safety Excellence initiative to take these safety efforts to the next level. The effort includes public sharing of our safety performance record and strategic initiatives addressing a number of key safety issues. Pipelines are also the most cost-effective form of energy transportation infrastructure and the ideal method of transporting large volumes of energy across the country.

IMPORTANCE OF NEW PIPELINES

One essential element to assure continued sufficient supply of energy liquids is adequate pipeline capacity, including the building of new pipelines. AOPL members have been responding to the North American energy revolution by making substantial investments needed to link new supply sources to refining and consuming markets. Pipeline operators have been constructing new pipelines, reversing pipelines, converting underutilized pipelines from one type of product service to another, and expanding the capacity of existing pipelines by adding horsepower to pumping stations. More than 10,000 miles of new liquids pipelines have been placed into service in the last four years, according to the U.S. Department of Transportation[6]. These new pipelines are enabling Americans to access growing production of crude oil from Texas to Alberta, growing production of natural gas liquids from North Dakota to Texas to Ohio, and increases in refining and fractionation capacity.

Pipeline shippers play a huge role in assuring the availability of needed pipeline capacity. Most new pipeline capacity projects are supported by long-term agreements between pipeline operators and shippers to assure the viability of proposed pipelines and enable financing. However, most existing pipelines do not have any financial commitments by their shippers; as stated above, the shippers, not the pipelines, choose if, when, and how much volume to transport on the pipelines, and they can freely choose to discontinue the use of a pipeline in favor of another pipeline or an alternate form of transportation. In either case, as transportation service companies moving products for a fee, pipeline operators have every incentive to maximize shipments by their customers. When shippers express their need for service by committing to sufficiently use pipelines, pipeline operators respond.

Government policies also play a huge role in assuring availability of needed pipeline capacity. Thankfully, the Interstate Commerce Act and FERC policies today allow liquid pipeline operators to respond quickly to changing needs by propane and other shippers. FERC needs to continue to honor long-term transportation agreements between pipeline operators and shippers to ensure that needed new infrastructure can be built[7]. It is essential that States make timely decisions on siting requests for pipelines, Federal agencies process permits needed for certain pipeline construction activities, and, of course, the U.S. Department of State efficiently grants Presidential Permits for pipeline facilities crossing our national borders.

AOPL appreciates your attention to these issues with this hearing today.

The CHAIR. Thank you so much.

Mr. Cordill.

STATEMENT OF JOE CORDILL, CORDILL BUTANE PROPANE SERVICE, FORMER CHAIRMAN OF THE NATIONAL PROPANE GAS ASSOCIATION

Mr. CORDILL. Good afternoon, Madame Chair and members of the committee. My name is Joe Cordill, the owner of Cordill Pro-

[6] Annual Report Mileage, U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration, http://www.phmsa.dot.gov/portal/site/PHMSA/menuitem.6f23687cf7b00b0f22e4c6962d9c8789/?vgnextoid=d731f5448a359310VgnVCM1000001ecb7898RCRD&vgnextchannel=3b6c03347e4d8210VgnVCM1000001ecb7898RCRD&vgnextfmt=print.

[7] Earlier this year FERC reiterated its long-held policy of honoring transportation service agreements between oil pipelines and their shippers, absent a compelling reason such as a lack of good faith negotiations. See Seaway Crude Pipeline Company LLC, 146 FERC § 61,151 (2014).

pane Service, a retail marketer in Winnsboro, Louisiana. I've served on the Board of Directors of the National Propane Gas Association for a number of years and served as a Board Chairman in the years 2000 and 2010.

The propane industry in Louisiana did face a colder than normal winter. The winter affected Louisianans in many of the similar ways as the rest of the Nation, although perhaps not to the same degree. Heating degree days were nearly 30 percent higher in the State compared to the previous year.

In addition due to largely to the higher demand in other parts of the country spot prices of propane increased in Louisiana as well. We became very familiar with trucks with out-of-State plates who were traveling to Louisiana and Texas to obtain supplies that they could not get elsewhere. This in turn increased the wait time at our terminals and increased the freight costs for our trucks that were supplying our own bulk plants in Monroe and Winnsboro.

We are in the middle of a true energy revolution and propane production is up dramatically. Large volumes of propane are transported by petroleum products pipeline as well as rail, truck, ship and barge. Propane is used in residential, commercial and agricultural markets for space heating, water heating, cooking, clothes drying, grain drying, barbeques and increasingly as a motor fuel.

About 50 million American families use propane in some way. Ten million have home delivery and approximately 6 million households use propane as their primary heat. This past winter clearly showed how much propane is relied upon in the agriculture sectors as well.

As you can see from this first chart, the Nation is in the midst of a boom in propane production resulting from the production of natural gas from shale formations. We believe propane production may almost double between now and the year 2020. It is important for the committee to understand how this increased production is causing fundamental changes to take place in our Nation's fuel distribution infrastructure.

We are seeing changes in the historic flow of fuels to accommodate the record production levels from shale formations. Pipelines that once carried propane from producing regions like the Gulf Coast and Western Canada are being reversed to carry other products. The impacts of these pipeline reversals were made crystal clear this winter with the Cochin pipeline being out of service for several crucial weeks last fall.

Another prime example is the reversal of a segment of the TEPPCO pipeline that runs from Texas through to Louisiana to Ohio. Setting aside for a moment the fact that these major service changes do not require FERC to consider the impact on propane consumers, the pipeline infrastructure is changing in ways that hampered our ability to rebuild inventories after the strong crop drying season in the Midwest and cold weather nationwide.

You can see from this chart on how the effect was done. PADD–2 which is the upper Midwest which includes Conway, Kansas, due to unusually high grain drying demand and the loss of a million barrels of storage at Todhunter, Ohio started the heating season at the lowest level in the last 5 years and ended the heating season below the previous 10 year's low.

On the other hand, PADD–3 which is the Gulf Coast including Mont Belvieu, started a heating season near the 5-year high but ended the heating season barely above the 10-year low. The graphs show a very rapid inventory draw beginning in October. Then a key factor in these low inventory levels could be exports.

On my next chart you can see just how fast the growth in export capacity has been and will continue to be through 2016. These are announced export projects, many of which are already under construction. No Federal authority exists to dial this back for propane like the rules that apply to natural gas exports, much less an outright ban as exists for crude oil.

Our industry is developing policy recommendations in many areas that will help us manage our transition into energy abundance. Our top priority is to pursue changes to ensure that we are able to serve our customers. There are things the industry can do better.

In addition, we believe strongly that the transparency of the pipeline infrastructure, rules concerning pipeline operators affiliates and providing FERC with authority to review service changes are essential. EIA can be very helpful as well by collecting more finely tuned propane storage data. This data could include propane that is held by the petrochemical industry so that the market participants have better information to guide their decisions.

Finally, we believe additional primary storage facilities, like the Finger Lakes project in New York State, which is ready to go into service had it been given authority, could greatly and dramatically increase our resilience in an environment of changing energy flows. Madame Chair, this concludes my remarks and I would be happy to answer any questions that you may have.

[The prepared statement of Mr. Cordill follows:]

PREPARED STATEMENT OF JOE CORDILL, CORDILL BUTANE PROPANE SERVICE, FORMER CHAIRMAN OF THE NATIONAL PROPANE GAS ASSOCIATION

Good afternoon. My name is Joe Cordill and I am the owner of Cordill Butane Propane Service located in Winnsboro, Louisiana. My company has two locations, the other in Monroe, Louisiana, from which I deliver fuel supplies to both residential and commercial customers in my surrounding area. I joined the family business in 1978 after spending 10 years in oil and gas production and processing in the Louisiana Gulf Coast and in West Africa. I was reared around the propane industry as my family has been involved since prior to WWII. I have served the industry in various volunteer capacities at the state and national level including serving as chairman of the National Propane Gas Association.

I am very pleased to be invited to present testimony to you today on topics related to the nature and sources of propane, our experiences in Louisiana this past winter, and what possibly could be done to improve the propane infrastructure so that we are better able to serve customers in the future.

A PRIMER ON PROPANE

Propane is a naturally occurring hydrocarbon commonly found in the production stream of oil and natural gas wells. With the chemical formula C_3H_8, it is one of the least complex hydrocarbons (technically an alkane). It is closely related to methane (natural gas), which, with the chemical formula CH_4, is the least complex of the hydrocarbons. Chemically, only ethane (C_2H_6) separates natural gas and propane. More complex hydrocarbons include butane, pentane and a mixture of heavier hydrocarbons referred to as Hexanes plus or natural gasoline. The molecular proximity of propane to methane has important real-world consequences.

Like natural gas, propane is colorless, odorless, and tasteless. (For both products the smell that people associate with them is artificially added at the retail level for safety purposes.) Both are gaseous at normal temperatures and pressures. As a re-

sult, both are readily usable as fuels in a number of applications. While natural gas liquefies at -162 Centigrade (-264 Fahrenheit), propane liquefies at -42 Centigrade (-44 Fahrenheit) . With pressure, propane becomes a liquid at higher temperatures—hence "liquefied petroleum gas" (LPG), another name for propane. An important consequence of the difference in the temperatures at which the two compounds liquefy is that propane can be stored and transported in relatively lightweight containers and with much greater ease and economy than natural gas (in either a gaseous or liquefied state). While large volumes of propane are transported by petroleum products pipelines, it is also commercially feasible to transport it by rail, truck, ship, and barge. Technically those modes are possible for natural gas, but they are not generally economically feasible—on a retail basis—because natural gas, whether compressed or liquefied, requires much heavier storage containers and higher pressure or lower temperature. At ordinary temperatures and pressures natural gas is lighter than air, while propane is heavier than air.

Propane is produced (as with other more complex hydrocarbons) through two processes. First, it can be extracted from natural gas streams in natural gas processing plants. Second, it can be produced by refiners as part of the crude oil cracking process. Today the former method of production accounts for more than seventy percent of domestic propane supply. North American supplies of propane are adequate to meet the entire U.S. demand. Unlike customers of gasoline, diesel fuel, and heating oil, propane customers are not dependent upon supplies from foreign nations. (Although some propane is imported, the volume is dramatically less than the volume of exports.) Propane is in essence a byproduct, and, from a commercial perspective, production varies not so much with the demand for propane as the demand for the products of which it is a byproduct (natural gas and refinery products).

The nation is in the midst of a boom in natural gas production, largely involving the production of natural gas from shale formations. Because currently natural gas liquids draw higher prices in the market than natural gas on an energy content (Btu) basis, producers are aggressively seeking shale gas that is rich in hydrocarbon liquids. As a result, domestic supplies of propane will be plentiful for the indefinite future.

Propane has applications in residential and commercial markets for heating (furnaces, boilers, and gas logs), water heating, cooking, and clothes drying. It is well known across America as a fuel source for barbecues, outdoor stoves, heaters, and the like. About 50 million Americans use propane for these various applications, and approximately 6 million households use propane as their primary source of heat. Similarly, propane has wide usage as a cooking fuel in recreational vehicles and boats. Additionally, propane commands a significant market as a transportation fuel, for forklifts, school buses, lawnmowers, vans, trucks, and cars. Indeed, there are more propane vehicles on the road than either electric or natural gas vehicles. Propane is also used as a fuel in the industrial sector both for space heating and process applications. Propane is used on nearly one million farms for irrigation pumps, grain dryers, standby generators, and other farm equipment. In addition, propane is a vital feedstock in the petrochemical industry.

Propane is a low-carbon fuel. At the point of combustion it produces 62 kg of CO_2/MMBtu, compared to 53 kg for natural gas, 71 kg for gasoline, and 93 kg for bituminous coal. Factoring in upstream emissions, propane produces 74 kg of CO_2/MMBtu, compared to 65 kg for natural gas, 91 kg for gasoline, and 221 kg for electricity. (The large number for electricity reflects the significant thermal loss in generation and the thermal loss in transmission and distribution.) A key fact in regard to carbon emissions is that when propane is released (i.e., fugitive) into the atmosphere, it has no greenhouse gas (GHG) effect because it deteriorates rapidly. In contrast, natural gas released into the atmosphere is approximately 25 times more potent than CO_2 as a GHG.

Propane accounts for approximately two percent of the primary energy consumed in the United States, compared to 29 percent for natural gas, 28 percent for coal, and 41 percent for petroleum products. Yet propane accounts for only one percent of the nation's GHG emissions. Propane is essentially "portable natural gas." Most propane today is produced alongside natural gas. It is used in the same applications as natural gas. Propane has an emissions profile similar to natural gas but with the added benefit of not being a GHG itself. Propane has the important benefit of being easily transportable to areas where there is no natural gas infrastructure.

THE PROPANE DELIVERY INFRASTRUCTURE IS UNDERGOING A DRAMATIC TRANSITION

The delivery infrastructure for fossil fuels—petroleum, natural gas, and natural gas liquids like propane—is in the midst of an historic transition. This exacerbated propane supply and delivery challenges this winter heating season. Historically, pro-

pane has been produced in the Gulf Coast and the Mid-continent and then transported to consuming regions to the North and East, primarily by pipeline. During the summer, when propane demand is typically low, propane inventories built up and were placed into seasonal storage, primarily in the storage facilities in the Gulf Coast and Kansas. During the winter, propane was withdrawn from storage and shipped by pipeline, rail, and truck to consumer markets. In addition, the Northeast previously imported significant volumes of propane from Canada and by marine tanker, particularly during the winter.

Over the last six years, the nation's exploration and production community has devoted enormous resources to finding and extracting fossil fuels from shale formations, all of which had previously been beyond both technical and economic reach. The result has been the production of previously unimaginable amounts of domestic fuels, including propane. One of the challenges, however, has been that this production has occurred in different areas from those where the nation has previously produced its energy supplies. These include, for example, the Marcellus and Utica formations (Pennsylvania, West Virginia and Ohio), the Bakken formation (North Dakota), and the Fayetteville formation (Arkansas).

The result has been a change in the historical flow of fuels. The nation's energy infrastructure was built to deliver petroleum, natural gas, and natural gas liquids from Texas, Louisiana and Oklahoma to markets throughout the country. With the influx of energy from shale formations, the nation's energy delivery system has had to make significant adjustments. New infrastructure is being built to bring Bakken crude to market. Natural gas and natural gas liquids are now flowing from the Marcellus both toward Northeast markets and the traditional energy-producing markets of the Gulf Coast. Several petroleum products pipelines are being reversed to transport product toward areas that have traditionally been energy-producing. Natural gas pipelines are being converted to carry petroleum. Propane pipelines that have been underutilized in the past, or used primarily to meet winter demand, are being converted to carry production from the new producing regions to the processing facilities in the Gulf Coast or Canada. Rail carriers and motor carriers are being enlisted to transport products to make up for pipeline infrastructure that has not yet been built.

Additionally, as shipments of heavy crude oil from Canada have increased, demand for diluent, a substance necessary for the processing and pipeline shipment of heavy crude, has increased. Northbound pipelines are increasingly targeting this demand, offering priority service and incentive rates to diluent producers in the Gulf Coast for shipments north to Canadian producing regions. As diluent shipments have increased, the available capacity for northbound shipments of traditional products, including propane, has been reduced.

These events have been disruptive to energy infrastructure and energy markets. The transition is, however, nowhere near complete but in time facilities will be constructed to eliminate these issues. The challenges that have occurred for propane markets during the 2013/2014 winter have been exacerbated by this transformation of the energy delivery infrastructure.

Cochin Pipeline Reversal

One of the pipelines undergoing transition that most significantly affects Midwest propane delivery is the Cochin Pipeline. The Cochin pipeline system consists of an approximately 1,900-mile, 12-inch diameter multi-product pipeline operating between Fort Saskatchewan, Alberta, and Windsor, Ontario, including five terminals in the U.S. located at Carrington, N.D.; Benson and Mankato, Minnesota; New Hampton, Iowa; and Milford, Indiana. Last year, the pipeline was capable of transporting 78,000 barrels of propane a day from Alberta into the U.S. Midwest and Ontario. This was reduced to 50,000 barrels per day last summer.

Historically, the Cochin pipeline has been a major source of propane into the upper Midwest, and about 40 percent of propane in Minnesota came via the Cochin pipeline. However, for approximately three weeks starting in late November 2013, the Cochin pipeline was not in operation. This unfortunate situation made it nearly impossible for propane storage levels in the region to be replenished after the crop drying season that saw a nearly six-fold increase in demand for propane. The Cochin pipeline permanently halted all propane transportation into the U.S. in April of this year. The owner of the Cochin Pipeline, Kinder Morgan, is converting the Cochin Pipeline to carry diluent from the U.S. shale plays to the oil sands producers in Canada.

ATEX Pipeline Reversal

The Appalachian-Texas Pipeline (ATEX) is a new provider of ethane service from the Marcellus region to the Gulf Coast. The pipeline itself is not new, however; rath-

er it is one of two parallel pipelines that run from Mt. Belvieu, Texas to Todhunter, Ohio. What is new is that the 16 inch pipe that was converted to be the ATEX pipeline used to deliver product batches northward as part of the Enterprise TEPPCO system. The decision to reverse this pipeline to take ethane southward reflects the economics associated with taking the huge increases in shale production of natural gas liquids to market. Unfortunately, this reversal has caused all northbound product flowing on the Enterprise TEPPCO pipeline to be squeezed onto the remaining northbound pipeline. The elimination of this northbound capacity, along with the introduction of priority diluent service on the remaining northbound line to assist in the processing of Canadian heavy crude oil, has caused congestion and delays for shipments of propane to the Midwest and Northeast.

Southern Hills Pipeline

The initiation of NGL transportation on the Southern Hills Pipeline was announced in June, 2013. This pipeline will ramp up to move up to 175,000 barrels per day of natural gas liquids from the mid-continent (Southern Kansas) to the Gulf coast for processing.

The changes in the operation of both the pipeline infrastructure and the rail infrastructure have disrupted the historical patterns of flow of propane. As we saw during the winter of 2013/2014, the changes caused significant challenges for the propane industry in meeting the needs of their weather-sensitive customers, most dramatically in the Midwest and New England, but felt throughout the entire eastern half of the United States.

Rail Transportation

Significant volumes of propane are shipped via rail, and the propane industry is increasingly reliant upon this transportation mode. Here too, however, competition from other substances for transportation is intense and growing. Many facilities producing natural gas liquids, crude oil, or any of a variety of other products have yet to have access to reliable pipeline service to take their products to market, so they rely on railroads. Some of these products use the same kind of railcars as propane, which places additional demands on the existing pressurized railcar fleet. For those products that don't use the same kind of railcars, additional usage of the railroad infrastructure increases congestion making service less reliable even when railroads desire to prioritize propane shipments. In addition, rail transport becomes more unreliable during cold weather conditions when reliable propane delivery is needed the most.

DRAMATICALLY INCREASED PROPANE EXPORTS HAVE CHANGED MARKET DYNAMICS

The fact that America is now considering revising its energy policies to foster exports of natural gas and crude oil shows just how dramatically the shale revolution has turned the supply situation on its head. Unlike crude and natural gas, propane is not subject to any existing export prohibitions or licensing requirements, so exports have increased as fast as contracts could be signed and export capacity developed. Moreover, the capital costs of propane export facilities are a fraction of the costs of natural gas liquefaction facilities.

In 2013, U.S. propane production increased by 1.6 billion gallons. However, propane exports increased by 2.0 billion gallons, from 2.6 billion gallons in 2012 to 4.6 billion gallons in 2013. Last year, exports grew to over 25 percent of total U.S. propane production, and they are still increasing. There is no question that exports in such significant volumes were a significant factor during the winter of 2013/2014. There are a number of factors driving propane exports. Propane is a global commodity, and it is easily shipped. High production levels of natural gas and natural gas liquids depressed prices in the U.S., creating a differential making international shipments attractive. Strong demand from buyers in Central and Latin America, as well as Europe and Asia, looking for relatively cheap propane and willing to sign long-term contracts—up to 10 years in duration—provided an incentive to ship propane overseas. The contracts for these export facilities are designed to ensure a very high utilization rate, with penalty payments incurred if export shipments are cancelled. American companies looking to serve this market invested heavily in constructing or upgrading export facilities. The trend of increasing exports shows no sign of easing. Announced plans to construct additional propane export capacity would triple propane export capacity in the next three years.

IMPACTS OF WINTER 2013/2014 ON LOUISIANA MARKETERS AND CONSUMERS

Louisiana is largely a propane producing state. In 2009, approximately 1.1 billion gallons of odorized propane were produced in Louisiana, which is more than 14% of the U.S. total, while 45 million gallons were sold to the consumer market in 2011.

We calculate that nearly 50,000 homes are heated by propane in the state, nearly 3 percent of the total. The production, processing and sale of consumer grade propane contributed over $2 billion to the Louisiana economy. Louisiana's petrochemical industry is the second largest consumer of propane as a feedstock. Louisiana is well-supplied from a propane standpoint. Not only do two of the three major interstate propane pipelines run through Louisiana, but the world's largest underground storage facility at Mt. Belvieu is only a little more than 80 miles from the Louisiana-Texas border.

This winter affected Louisiana in many similar ways as the rest of the nation, although perhaps not to the same degree. It was a colder than normal winter, with heating degree days nearly 30% higher in the state than last year. In addition, due largely to the higher demand in other parts of the country, spot prices of propane increased in Louisiana as well. We became very familiar with trucks with out-of-state plates who were travelling to Louisiana and Texas to obtain supplies for their operations elsewhere. This in turn increased the wait times and demurrage costs for our trucks that were supplying our own bulk plants in Monroe and Winnsboro.

While this phenomenon is not unheard of, it had significantly more of an impact this year than previously. Seeing all of these out-of-state trucks made it clear that the storage levels and infrastructure in regions to our north were not adequate for the 2013/2014 winter demand. I am a strong believer in preparing for each winter, whether it be supply contracts, physical storage in the underground storage caverns we have available or otherwise ensuring that my customers will be served. So I am similarly supportive of the approval of the Finger Lakes storage facility in upstate New York. Having such a robust facility close to the New England demand area would have made trips down south much less likely and would have reduced the demand for Canadian product that would have been available for the upper midwest. In addition, I fear that had Europe experienced a colder winter than they did, some of the ships that supplied New England would not have come here. The Finger Lakes facility would have been a solid insurance policy against such a circumstance.

Although we were able to maintain adequate supply for our customers, I was not able to respond to the numerous requests that I received from retailers whom I know in other states that were requesting additional supplies to supplement their normal distribution channels.

RECOMMENDATIONS FOR THE FUTURE

There are a number of things that federal policymakers can do to improve the propane infrastructure and ensure deliverability of fuel to customers.

Increase transparency of the pipeline infrastructure, including rules for pipeline affiliates and a requirement to request permission to abandon service.—The three main interstate propane pipelines are owned or controlled by a single company that also ships propane; markets propane; trades propane contracts and futures; and exports propane. However, comparable regulations regarding affiliates that exist in the natural gas and electric sectors do not exist for propane pipelines. FERC should require pipelines to justify all rate increases rather than permit them to become effective without significant review. FERC should require pipelines to file annual reports that contain data showing whether they are over-recovering their actual costs of operating and whether some rates subsidize others. When such data shows that the pipelines are over-charging, FERC should investigate and take remedial action to protect consumers. Pipelines should also be required to justify their rates periodically.

Some pipelines charge "market-based" rates. FERC should regularly examine whether these are appropriate and whether the pipeline has acquired monopoly power in those markets. FERC should also examine whether pipelines have transferred essential facilities to unregulated entities that can charge unchecked prices for services that are essential to customers' utilizing the pipeline. Finally, Congress should amend the Interstate Commerce Act to require pipelines to demonstrate that the public interest is served before they discontinue service.

Eliminate Department of Commerce restriction on the Propane Education and Research Council.—There are many programs that propane marketers offer to their customers to help them manage their supply and heating bills in the winter. Fixed price contracts, pre-buys, annual budget plans, and others are all viable options for consumers to consider. However, the Propane Education and Research Council is unable to undertake a public communications program in this area because such activities have been restricted by the U.S Department of Commerce.

Section 9 of the Propane Education and Research Act of 1996 (PERA) provides for periodic consumer grade propane price analyses compared with residential natural gas, residential electricity, and refiner price to end users of heating oil. The

Commerce Department has for years interpreted the PERA law as a residential-only law, and so has performed these price analyses using EIA residential only propane price data. This was not the intention of Congress in enacting PERA, which specifically covers other propane sectors in the law's many provisions. Congress should insist that the Commerce Department acknowledge that PERA covers all sectors of propane usage, so that the existing data collected and reported by the EIA that reflects propane prices to all propane market segments is used to perform the DOC analysis required by Section 9 of PERA. Doing this would allow the propane industry to use its own resources to communicate broadly with customers on matters related to winter heating season preparation.

Support EIA collection and publication of better data.—The Energy Information Administration should collect more finely tuned propane storage data so that market participants have more reliable information to guide decisions in each region. Similarly, the Energy Information Administration should collect more detailed data on propane markets including real time export data. As market circumstances became more critical this winter, market participants realized they often had woefully insufficient information.

Encourage additional primary storage, such as the Finger Lakes facility in New York.—As a Louisiana propane marketer, I am very fortunate to be situated close to some of the largest propane supplies in the world. However, there are many marketers who are not as fortunate. For them, storage is important, both at large primary storage facilities and at their own locations. I don't think many in the industry would have a different opinion. One of the best options for our industry to increase storage close to high demand is the Finger Lakes storage facility in New York. Private investment is ready to go, and millions of dollars of equipment are awaiting Governor Cuomo's decision to approve the expansion. This would put over 88 million gallons of propane in the heart of a high winter demand area. It would allow Americans to efficiently utilize American propane, rather than paying a premium for imported propane.

CLOSING STATEMENT

Madam Chair, this concludes my written statement. I appreciate this opportunity to provide testimony before the Committee and look forward to answering any questions you may have. Thank you.

The CHAIR. Thank you for that excellent testimony.

Mr. Zimmerman.

STATEMENT OF JOHN ZIMMERMAN, IMMEDIATE PAST-PRESIDENT, MINNESOTA TURKEY GROWERS ASSOCIATION

Mr. ZIMMERMAN. Good afternoon.

My name is John Zimmerman and I'm a turkey farmer from Northfield, Minnesota and Past President of the Minnesota Turkey Growers Association. My family and I raise about 4 million pounds of turkey annually and our farm also—we also grow about 500 acres of corn and soy beans. I also sit on the Board of River Country Cooperative that supplies propane in rural Minnesota.

Finally, I'm also a member of the National Turkey Federation which represents the $29.5 billion U.S. turkey industry and which worked with Senator Franken and his staff this past winter to elevate and momentarily correct this dangerous propane shortage.

The problem is far from fixed. I am here today to once again say thanks to Senator Franken and the rest of the Minnesota delegation for staying focused on finding solutions. Winter unfortunately will be here before we know it. The potential for shortages by all estimates are going to get worse if significant steps are not taken soon.

What started as a Midwest propane supply shortage developed into a larger, national discussion with over 20 Governors declaring states of emergencies, scrambling to secure adequate supplies to meet the need during the critical winter months.

Why did this crisis occur?

Many of us have described it best as the 4 Cs: crop, Cochin, cold, and communication.

To start, inventories were already low caused by the increased demand for crop drying in November.

Second, the Cochin pipeline which is critical to Minnesota's propane supplies had been reduced to less than 50 percent of its normal capacity. It didn't help that at the same pipeline was also shut down for scheduled maintenance in November.

Finally, the volatile run up in prices started on December 12th, 2013 when a propane supplier notified many of our companies of force majeure indicating they would not be able to complete their obligations of their contract and the rest of our propane would have to be bought on the open market.

So what little propane was available we procured and what little storage our farms had left was filled. Unfortunately there was neither enough storage nor propane available to weather the long, brutal winter. Given the scenario I've presented fuel stocks were never able to rebound as early sub zero winter weather set in across much of the Midwest and Northeast hindering propane gas movement on our already overburdened pipeline and rail systems.

I will highlight a few substantive ideas later, but it is agreed upon by many that government, at the very least, should establish some type of early warning system that allows time to formulate a plan for an impending disaster. We did not have the luxury of a head start on moving propane from where it was stored to where it was needed because such a system did not exist. The inadequate transport and storage system combined with the lack of an early warning directly hit the pocketbook of the people that heat their homes with propane along with those of us that need propane to heat our turkey barns.

It is safe to estimate that in Minnesota the turkey industry saw propane use increase by over 30 percent from last winter. So when we saw propane prices go from $1.30 per gallon to over $5.00 per gallon in a few short weeks, you can see the impacts dug deep into our profit margins. This past winter alone, the Minnesota turkey industry saw an increase of over $25 million more in heating related input costs over the previous year. That's real money to farmers like me that operate on very thin margins.

While this propane shortage certainly caused significant price increases it became clear to many of us that if something was not done we could very well run out of propane all together. This forced us to ration what propane we had on hand by lowering temperatures in our barns, shops and homes. This in turn caused a loss of production efficiency and also concerns of potential animal welfare issues. This has and continues to directly impact the grower's bottom line as these turkeys go to market.

The Minnesota Turkey Growers Association has started the necessary precautions by forming a propane task force and our 250 grower members are prepared to do what is necessary to secure as much propane and storage before the cold weather hits this fall. However, there's not enough capacity to satisfy all the needs especially since the Cochin line, that was at 50 percent capacity this

past winter, is planning to stop delivering propane entirely this year.

There is currently no easy way to make up for the loss of the 200 million gallons that were provided by the Cochin, the equivalent of an additional 6,500 rail cars on an already taxed rail system. With rail and truck delivery being much less reliable comprehensive discussion must begin on how we ensure safe and timely deliveries to avoid the scare that caused the massive spikes in prices and the dangerous conditions for the Midwest. All options should be on the table.

Therefore, we ask for several items to be considered in the short term.

No. 1, direct the Federal Energy Regulatory Commission or the appropriate government agency to establish an advance notification system for end users when inventory levels drop below certain levels. There must be a way to give consumers a chance to adjust before these shortages occur.

Second, in the winter months an appropriate trigger must be developed that allows the government to step in and prioritize pipeline and rail shipments of propane as well as when to relax hours of service for trucks hauling propane.

Third, ease permitting for expanded propane storage.

Fourth, direct FERC or other agencies to report to Congress on current infrastructure abilities to meet demand by this September.

Finally, establish a Federal Government emergency response plan.

Long term we'd like to see ease in the permitting of construction for dedicated pipeline for propane and study and expand storage capabilities on government facilities that can allow relief.

To summarize strong demand surges, low inventories and supply challenges have led to the price spikes that are still impacting rural Minnesota today. If significant steps are not taken, this will happen again.

Thank you.

[The prepared statement of Mr. Zimmerman follows:]

PREPARED STATEMENT OF JOHN ZIMMERMAN, IMMEDIATE PAST-PRESIDENT, MINNESOTA TURKEY GROWERS ASSOCIATION

Good afternoon, my name is John Zimmerman, and I am a turkey farmer from Northfield, Minnesota and Past—President of the Minnesota Turkey Growers Association (MTGA). My wife and I raise about 4 million pounds of turkeys annually on our farm as well as grow about 500 acres of corn and soybeans. I also sit on the board of River Country Co-op that supplies propane in rural Minnesota. Finally, I also am a member of the National Turkey Federation, which represents the $29.5 billion U.S. turkey industry and which worked with Senator Franken and his staff this past winter to elevate and momentarily correct this dangerous propane shortage. The problem is far from fixed, and I am here today to once again thank Senator Franken and the rest of the Minnesota delegation for staying focused on finding solutions.

Winter, unfortunately, will be here before we know it and the potential for shortages, by all estimates, are going to get worse if significant steps are not taken soon.

What started as a Midwest propane supply shortage developed into a larger, national discussion with over 20 governors declaring a state of emergency, scrambling to secure adequate supplies to meet the need during the critical winter months.

Why did this crisis occur? Many of us have DESCRIBED IT best as the 4 C's (Crop, Cochin, Cold, and Communication) and I will elaborate.

To start, inventories were already low caused by increased demand for crop drying in November. Second, the Cochin pipeline, which is critical to Minnesota's propane

supplies, had been reduced to fifty percent of its normal capacity. It did not help that this same pipeline was shut down for scheduled maintenance in November. Finally, the volatile run up in prices started on December 12, 2013 when a propane supplier notified many of our companies of force majeure, indicating they would not be able to complete the obligations of their contract, and the rest of our propane would have to be bought on the open market. So, what remaining propane was available we procured and what little storage our farms had left was filled. Unfortunately, there was neither enough storage nor propane available to weather the long, brutal winter.

Given the scenario I presented, fuel stocks were never able to rebound as early sub-zero winter weather set in across much of the Midwest and Northeast, hindering propane gas movement on our already overburdened pipeline and rail systems. I will highlight a few substantive ideas later, but it is agreed by many that government at the very least, should establish some type of early warning system that allows time to formulate a plan for the impending disaster. We did not have the luxury of a head start on moving propane from where it was stored to where it was needed because such a system did not exist.

The inadequate transport and storage systems combined with the lack of an early warning directly hit the pocket book of the people that heat their homes with propane along with those of us that need propane to heat our turkey barns. It is safe to estimate that in Minnesota the turkey industry saw propane use increase by over 30% from last winter. So when we saw propane prices go from $1.30 / per gallon to $5 / per gallon in a few short weeks you can see the impacts dug deep into our profit margins. This past winter alone, the Minnesota turkey industry saw an increase of over 25 million dollars more in heating related input costs over the previous year. That is real money to farmers like me that operate on very thin margins.

While this propane shortage certainly caused significant price increases, it became clear to many of us that if something was not done we could very well run out propane altogether. This forced us to ration what propane we had on hand by lowering temperatures in our barns, shops and homes. This caused a loss of production efficiency and concerns over potential animal welfare issues. This has and continues to directly impact the growers' bottom line when the turkeys go to market.

MTGA has started the necessary precautions by forming a "propane taskforce" and our 250 growers are prepared to do what is necessary to secure as much propane in storage before the cold weather hits this fall. However, there is not enough capacity to satisfy all the needs especially since the Cochin pipeline that was at fifty percent capacity this past winter is planning to stop delivering propane entirely this year.

There is currently no way to easily make up the loss of eighty million barrels that were provided by the Cochin pipeline. With rail and truck delivery being much less reliable, comprehensive discussion must begin on how we ensure safe and timely deliveries to avoid the scare that caused the massive spikes in pricing and the dangerous conditions for the Midwest. All options should be on the table.

Therefore we ask that several items be considered in the short-term:

1. Transparency.—Direct the Federal Energy Regulatory Commission (FERC) or the appropriate government agency to establish an advanced notification system for end users when supplies/inventory drops below certain levels. There must be a way to give consumers a chance to adjust before the shortage occurs.
2. Government Intervention.—In the winter months, an appropriate trigger must be developed that allows the government to step in and prioritize pipeline and rail shipments of propane, as well as when to relax hours of service for trucks hauling propane.
3. Ease permitting for expanded propane storage.
4. Direct FERC or other agencies to report to Congress on current infrastructure abilities to meet demand by this September.
5. Establish a federal government emergency response plan.

Long-term:

1. Ease permitting for construction of a dedicated pipeline for propane.
2. Study and expand storage capabilities on government facilities that can allow relief.

To summarize, strong demand surges, low inventories and supply challenges have led to the price spikes that are still impacting rural Minnesota. If significant steps are not taken this will happen again.

Thank you for the opportunity to testify today, I will be happy to answer any questions at this time.

The CHAIR. Thank you for those excellent suggestions.
Mr. France.

STATEMENT OF GARY FRANCE, FRANCE PROPANE SERVICE, CHAIRMAN OF THE NATIONAL PROPANE GAS ASSOCIATION

Mr. FRANCE. Good afternoon.

Good afternoon, Madame Chair, Ranking Member Murkowski and members of the committee. My name is Gary France and I am the owner of France Propane Service in Schofield, Wisconsin. I also serve as Chairman of the National Propane Gas Association.

My message to you today reflects my experiences as a small business owner, a trade association leader and a concerned citizen. It is no secret that propane retailers in many States faced supply and distribution problems this winter. Even so, our industry's highest priority was always to safely and reliably serve the millions of households nationwide who depend on propane. The vast majority of retail marketers were able to do just that despite the significant challenges they faced.

In my statement today I plan to briefly describe our industry, what we do, identify some of the main causes of this winter's problems and our plans to make sure it never happens again.

NPGA is made up of nearly 3,000 member companies that produce, transport and sell propane for a wide variety of uses. By far the largest segment of our association is made up of retail propane marketers who deliver fuel locally to nearly 6 million American households around the country. A large number of marketers, like myself, bill to businesses one customer at a time, know their customers well and share the economic impact of this past winter with them.

We all know that the weather played a big role this winter. We had a late, wet, concentrated harvest season and farmers used 5 times the amount of propane they used the previous year. Winter started early and had sustained cold temperatures. Heating degree days were 10 percent higher than the previous year and 15 percent higher than the year before.

In Wisconsin, specifically in my area, we are close to breaking the record December through March average temperature of 7.4 degrees set in 1903 and 2004. This year the average temperature was 7.7 degrees.

We also experienced over 58 days with below zero temperatures.

These two factors alone increased propane demand by over a billion gallons.

We struggled to rebuild inventories all winter. The Cochin pipeline being down for a few weeks in November and December definitely didn't help. Storage levels ran low at the Conway bulk storage facility which is a major hub serving the Midwest, especially when Canadian supply from the Cochin is offline.

Propane exports were also a factor. We are now a major propane exporting country. With nearly one in 4 gallons flowing overseas and export facilities are being as built as fast as the concrete can be poured.

There is no Federal oversight or limitations that apply such as exist for natural gas exports. While we are generally free market supporters, we are now considering whether to recommend changes

to our current propane export policy because of its effect on consumers and energy reliability.

Exports have created a dramatic transition with the fuel distribution infrastructure in our country. Record production of crude oil, natural gas and propane from shale formations is changing the historic flow of fuels. Pipelines that once carried propane from the Gulf coast to markets in the North are being reversed to carry other products south to the Gulf coast. This is placing greater pressure and congestion on railroads and highways, backbones of the propane delivery infrastructure.

To better understand these changes and their effects on reliability the NPGA's Board of Directors established a supply and infrastructure task force with a broad band aid to develop recommendations in a number of areas. Our goal is to identify improvements in policy and in business practices that will ensure our industry's resilience. We know all segments of our industry must examine weaknesses that may have contributed to the situation we experienced this past winter. We will identify them and propose solutions that hopefully will prevent problems in the future.

I have a personal commitment investment in the success of this task force. As Chairman of the National Propane Gas Association I had the opportunity to visit members nationwide and hear their concerns. More importantly, I am active in our company and have personally delivered over 250,000 gallons of propane since December myself.

This has allowed me to witness firsthand the concern of our customers who rely on our company to keep them comfortable, give them a hot shower and a warm meal. It was difficult to give my customers a bill higher than they expected. Many were frightened by the constant barrage of news stories reminding them of propane shortages.

I shared their feelings as I watched an order of propane being delivered at my plant at a rate of 1,000 gallons a minute. It was at that point that I realized we could not allow propane to be treated strictly as a commodity to solve our supply problems. My son, Patrick, recently joined our business and I want him to have a future that allows him to continue serving our customers in a fair and reliable manner.

Whether it's my passion for this industry or a father's love of his son, I want to ensure that industry and customers never face another winter like this again.

Madame Chair, this concludes my remarks. I thank you and the committee for taking our time today.

[The prepared statement of Mr. France follows:]

PREPARED STATEMENT OF GARY FRANCE, FRANCE PROPANE SERVICE, CHAIRMAN OF THE NATIONAL PROPANE GAS ASSOCIATION

The National Propane Gas Association (NPGA) is pleased to submit this statement for today's hearing. Our nearly 3,000 members—predominantly small, family-owned businesses—make up an industry that provides propane to fuel homes, farms, businesses and vehicles in all fifty states. The industry employs approximately 40,000 industry individuals nationwide. Propane is a non-toxic gas produced from natural gas processing and crude oil refining. Over 70 percent of propane produced in the U.S. comes from natural gas.

Today's hearing is particularly timely for the propane industry. During the 2013/2014 winter heating season propane retailers in several regions of the country faced

critical supply constraints of propane. The supply challenges in the Midwest have been of particular concern. Propane retailers filled customer tanks to less than maximum levels to stretch their limited supplies. Propane suppliers traveled long distances and waited in long lines at terminals where the availability of supply was unpredictable, and where they confronted historically high prices. These high costs have hurt businesses and, worse, threatened the ability of propane customers to purchase essential heating fuel.

NPGA's today provides examples of how America's energy future is changing, which in turn challenges existing energy flows and delivery infrastructures. We also present information on how laws affecting the propane industry were helpful, and also how we believe they could be strengthened. Our core principle in appearing before you today is that we must ensure that America's energy abundance continues to serve American citizens and consumers in a consistent, reliable, and affordable manner.

CAUSES AND CONTRIBUTING FACTORS OF TIGHT SUPPLIES IN THE WINTER OF 2013/2014

Pre-Season Inventory Levels

The 2013/2014 heating season began with national propane inventories at approximately 67 million barrels, eight million barrels less than at the same time in 2012. Traditionally, the winter heating season starts the first week in October when the U.S. Energy Information Administration (EIA) begins publishing its "Heating Oil and Propane Update," which is published weekly during the heating season each year. In 2013, national propane inventories were roughly in the middle of the 5-year average as reported by EIA.

While we entered the heating season with average inventory levels, between October 2013 and March 2014 we estimate that total U.S. propane consumption increased by an about 670 million gallons relative to the same period in the previous year. In the Midwest, propane consumption from October 2013 to March 2014 increased by 485 million gallons (11.5 million barrels) relative to the same period in the previous year. In the Northeast, propane consumption increased over the 2012/2013 winter levels by an estimated 91 million gallons (2.2 million barrels), while the South saw an estimated increase of 130 million gallons (3.1 million barrels). The only region of the country to see a drop in propane consumption is the West, where the dry, warm winter is estimated to have caused a decline in propane consumption of 36 million gallons (0.9 million barrels).

Inventories in PADD 2 first fell below the 5-year minimum range in the first week of October. By the last week of October, PADD 2 propane inventories fell below the 10-year minimum levels for the same week, and remained below the 10-year weekly minimums throughout the winter. In the first week of March, propane inventories in PADD 2 fell below the absolute lowest level in the preceding 10-years, and continued falling, setting a new record low the following week in the second week of March. Midwest propane inventories remain low; EIA's last reported storage levels, for April 18th, show PADD 2 inventories still below the previous 5-year minimum range for this week of the year.

Throughout the winter, PADD 3 inventories also flirted with 5-year minimums. PADD 3, and particularly the Mont Belvieu storage complex, constitutes the largest propane storage capacity in the world. While PADD 3 storage entered the winter heating season at average levels, inventory levels fell to 5-year minimums, and remained so from the first week of January through to the last week of February, when net injections into storage finally began to overtake net withdrawals. Altogether, nationwide propane inventories ended the 2013/2014 winter 541 million gallons below the 2012/2013 winter levels, as reported by the EIA for the last week of March.

Crop Drying Demand

A primary factor leading to low inventories, particularly in the Midwest, was an unusually wet and large harvest that occurred late in the harvest season forcing farmers to use more propane than anticipated. During the 2013 corn harvest, about 13.9 billion bushels of corn were harvested, a historic record. During the same time, the "Corn Belt" region of the Midwest received above-average rainfall, with the first week of October recording 200 to 500 percent above normal precipitation. Industry analysts estimate total grain-drying demand for propane at more than 300 million gallons in 2013, 235 million gallons above 2012 levels. These factors led to an increased demand for propane late in the harvest season. Compounding this situation was the fact that the harvest was compressed into a much shorter period of time than usual. Suppliers in the Midwest did not have the chance to rebuild propane inventories before the onset of an early and cold winter.

Colder Than Normal Weather

With propane supplies already low due to the dramatic increase in agricultural consumption, many propane retailers were undersupplied when the pace of winter home-heating demands rose quickly and significantly. Additionally, consumers in many instances were underprepared for the early, intense winter characterized most notably by the "Polar Vortex" weather phenomenon. The intensity level of winter was particularly unexpected, considering the unseasonably warm winters of the previous two years.

When comparing Heating Degree Days (HDD)[1] to the previous three years, this winter's U.S. total population weighted HDDs through March came in 7.5% above NOAA's 30-year average, 10.6% above the 2012/2013 season, and 27.9% above the 2011/2012 season. Not only was this winter above historical norms, but heating needs compared to last year's equated to an increased propane demand of 640 million gallons in calendar year 2013 relative to 2012, and an increase in propane demand of about 410 million gallons for the October 2013-March 2014 period relative to the previous winter.

STATE AND FEDERAL AUTHORITIES HELPED ALLEVIATE THE SITUATION

There are many people who contributed to resolving, and are still working to resolve, the issues posed by this year's heating season. On behalf of the industry and our customers, NPGA wishes to thank these individuals and organizations for their commitment to finding both short-term and long-term solutions.

Many states granted Hours of Service (HOS) waivers, which helped immensely. These waivers allow truck drivers to obtain needed propane from far-away places and deliver that propane to customers. On the federal level, the Department of Transportation (DOT) granted four unprecedented regional waivers from HOS. As many as 35 states in the FMCSA's Eastern, Midwestern, Southern, and Western Service Centers were granted these exemptions, providing stability and uniformity throughout these regions. Exemptions in portions of the country remain in effect through May 31, 2014 per the Home Heating Emergency Assistance Through Transportation Act of 2014.

Some states granted exemptions from weight limits for trucks traveling over state roads. While this does not allow drivers to carry overweight loads on interstate highways, it does help trucks carry additional fuel volumes up to the maximum amount of propane allowed by law.

The State of Texas deserves specific recognition for its efforts, which were crucial in getting propane supplies out of the state to the rest of the country. Texas is host to the largest primary storage of propane in the world, and many truck drivers from out of state traveled to Texas to obtain the fuel directly from the storage facilities near Mont Belvieu. Specifically, the state waived its permitting requirements for out-of-state vehicles, a process that can otherwise take as much as 30 days to complete. This allowed drivers from other states to immediately operate in Texas so they could transport their loads back to their home state.

A number of states took advantage of the Low-Income Home Energy Assistance Program (LIHEAP) to help consumers. At a time when we've seen unusually high prices, this program provided much needed assistance to the customers who need it most.

Energy Secretary Ernie Moniz was personally active in asking pipeline companies to prioritize shipments of propane on their systems. He also reached out to several NPGA members to determine what further assistance DOE could provide. DOE's Office of Electric Delivery and Energy Reliability was helpful and supportive throughout the winter by holding conference calls, on a daily basis at times, with NPGA and other stakeholders to address the infrastructure and delivery concerns.

The Federal Energy Regulation Commission (FERC) invoked, for the first time in its history, emergency authority requiring the operator of the Enterprise TEPPCO pipeline to prioritize shipments of propane. This action ensured that an additional 500,000 barrels of propane would move from Texas up into the Midwest and Northeast earlier than regularly scheduled.

The Small Business Administration (SBA), through its individual state offices and loan partners, provided relief in the form of Express Loans and Micro Loans to pro-

[1] According to the EIA, Heating Degree Days (HDD) provide "A measure of how cold a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the average of the day's high and low temperatures from the base temperature (65 degrees), with negative values set equal to zero. Each day's heating degree days are summed to create a heating degree day measure for a specified reference period. Heating degree days are used in energy analysis as an indicator of space heating energy requirements or use."

pane retailers. These loans provided relief to the small propane marketers who, due to the increased cost of propane from their suppliers and the increased volume of propane required, had reached the limits on their existing lines of credit.

Finally, we are also grateful for the meetings with the Governors of the affected states, and the numerous teleconferences with states' energy, transportation, and agriculture officials that were held, which allowed the sharing of credible real-time information and increased coordination among all parties.

RECOMMENDATIONS TO IMPROVE PROPANE RELIABILITY, RESILIENCE, AND CONSUMER PROTECTION

Propane markets in the United States are not regulated except as to issues of safety. Neither the federal nor state governments exercise economic regulation (except as to pipeline transmission). The market is characterized by intense free market competition and low barriers to entry. Nevertheless, given the experiences of the winter of 2013/2014 it is evident that there are roles for government to play to ensure reliability, resilience, and consumer protection. NPGA has now launched a broad-based effort with its membership to assess the lessons learned from this winter to determine what action government might take to avoid a future recurrence. A few areas for government action are already clear, and they are outlined below.

Review Export Policies

During the winter of 2013/2014, as supply constraints emerged and as prices spiked, many consumers and members of the propane industry questioned whether these events were caused by growing exports of propane. Over the past four years, exports of propane from the Gulf Coast have increased dramatically as new export capacity has been developed and brought online. Based on the number of additional projects designed to increase export capacity that are currently under construction or have been announced, this growth trend is expected to continue. NPGA commissioned a study to examine the propane export question. Further in-depth analysis is, however, needed, and NPGA will request that the EIA conduct a study of propane supply, demand, and exports similar to the study it conducted with respect to Liquefied Natural Gas (LNG) exports.

Should policy action with regard to exports be deemed necessary, there are a variety of broad options to be considered. Some have suggested that Section 3 of the federal Natural Gas Act of 1938 would empower the federal government to require export licenses. Another avenue would be a provision of the Energy Policy and Conservation Act of 1975 found at 42 U.S.C. §6212. Arguably, this authorizes the President to control propane exports. Such control might include licensing turning upon a public interest finding, export restrictions tied to prices or demand, or outright prohibition of exports. (NPGA understands that the President's authority under this law has been delegated to the Secretary of Commerce.) This authority has not been invoked in the past, and a formal proceeding engaging all stakeholders would, by the terms of the statute, be necessary. Congress, of course, also has authority to enact a new law that addresses this issue in any fashion that it determines to be in the interest of the United States. Should the federal government move forward on this front, it would be necessary to ensure that any policy adopted is compliant with World Trade Organization principles and the various trade treaties to which the United States is a signatory.

Ensure Markets are Performing Properly

In January 2014, wholesale prices of propane at a key market hub in the Midwest tripled in the matter of a few days. This caused a temporary doubling of retail prices in large areas of the Midwest as reported by the Department of Energy (DOE). While price fluctuations in winter are common as supply and demand balances are achieved, these dramatic increases in propane prices were unprecedented.

On January 23, 2014, Senator Charles Grassley called on the Federal Trade Commission (FTC) to investigate the matter to ensure that these price spikes were not a result of anti-competitive behavior or illegal manipulation. NPGA fully supports Senator Grassley's request and urges the FTC to review the matter expeditiously and thoroughly.

NPGA believes it is an appropriate role of the federal government to assure citizens that markets are operating lawfully and to take appropriate action if they are not. While significant price volatility is common with respect to almost all energy commodities—and is in fact necessary to allow markets to function appropriately—it is important to ensure that unexpected volatility such as that observed this winter was in fact caused by the appropriate functioning of energy markets rather than anti-competitive behavior or market manipulation. Additionally, there may be roles

for other federal agencies to play in ensuring that propane production, transmission, and marketing have occurred, and will occur, consistent with free-market principles.

Improve Inventory Data—Timeliness and Reliability

EIA maintains a number of data gathering programs in the energy area and publishes weekly inventory numbers and trends for propane, among other fuels. EIA data includes weekly residential and wholesale propane prices; propane stocks in barrels and days of supply; regional propane production and imports; and propane demand estimates. Unfortunately, EIA data has not kept pace with changes in the energy sector, particularly with regard to the shale revolution and production of natural gas liquids, such as propane.

Such high levels of production have provided incentives for companies to export significant volumes of propane to such an extent that the U.S. is now the world's largest exporter of propane. Propane export data is available on a per-ship basis by subscription from costly private sources. It would be highly useful to the industry and the public for EIA to expand its data gathering activities to include regular publication of aggregated propane export data. This would provide industry and policymakers with clear knowledge of the trends in propane exports, making appropriate business decision-making more rational and timely.

Significant volumes of propane are owned and stored at proprietary terminals or locations around the United States. The location, size, contract status, and accessibility of these inventories are unknown, which puts the marketplace in a vulnerable position when supplies get tight. In previous years, the petrochemical sector sold propane back into the marketplace when prices rose in response to tight supplies, which performed a balancing role to bring prices back down. The shale revolution has changed this dynamic and greatly increased the complexity of the relationships among the various natural gas liquids uses and marketplaces.

The fact remains that significant volumes of propane are stored in proprietary storage facilities in amounts completely unknown to the marketplace. In addition, an unknown quantity of the propane in the available propane inventory reports is committed to exports, and would not be available to the domestic market without paying significant contractual penalties. As a result, the reported propane inventory data overstates inventories that are actually available to the domestic market, and no one knows how big this overstatement might be.

This winter, volumes at Conway, Kansas, approached critically low levels and NPGA was concerned this could lead to significant deliverability problems. NPGA had no way of knowing how low volumes were going to be in part because of the lack of knowledge about proprietary storage levels. When the marketplace does not have good data about supply, prices are affected; this winter was no exception. In the future it would be very helpful to have a better handle on proprietary storage levels, as this would mitigate price spikes, like those seen this winter.

Beginning approximately ten years ago, EIA began collecting and publishing weekly natural gas storage data. There is no question that this data is a key information point that is reviewed and considered by many decision makers in the natural gas industry. The weekly storage report is a key piece of market data for both spot and futures natural gas markets. It also assists in ensuring market transparency and a well-functioning market. A similar data set by EIA would be of great assistance to propane market participants and would assist in ensuring transparency of markets.

Finally, data that EIA currently collects lumps both propane and propylene together. Disaggregating these two commodities would aid in market transparency. Similarly, additional geographical granularity in propane inventory data would be welcomed by markets.

Increase Transparency in Petroleum Products Pipelines

There has been significant consolidation in the interstate pipeline system regarding propane. Currently, the three largest interstate propane pipelines are owned or controlled by a single company. In a presentation to FERC in July 2013, NPGA presented data estimating the propane deliveries on the key multi-shipper propane pipelines. Of these, a single company shipped approximately 80 percent of propane, while all the others shipped approximately 20 percent. At the same time, there have been significant increases proposed on the federally regulated Dixie and TEPPCO pipelines, while the costs for other non-regulated terminalling services have increased as well.

From discussions with NPGA members over the past several months it is apparent that the operation this winter of the nation's petroleum products pipelines—the principal means by which propane is delivered to the market—is at best opaque, and the lack of transparency substantially increased the difficulty of dealing with

the propane supply shortages. For example, propane shippers reported being unable to obtain capacity on pipelines to deliver product to markets with critical needs while the owner of the pipeline had product available for sale in those markets.

While this situation may have served some purpose in the past, at this point it may give an undue advantage to a pipeline that is also engaged in selling, marketing, and trading propane. Similarly, the manner in which pipelines operate without providing adequate information to the marketplace in a transparent and timely manner does not allow the market, including propane companies, to respond adequately and adapt to changes in pipeline operations. Rather, it gives an undue advantage to the pipelines, especially those with marketing and other business operations outside the transportation area.

The Federal Energy Regulatory Commission (FERC) should increase its oversight of infrastructure changes that have significant impacts on customers, especially when the pipeline industry is becoming more concentrated and when assets that have been dedicated to and paid for by historic shippers are spun off into unregulated ventures. There are several aspects to this issue. Remedies may require revisions to the Interstate Commerce Act or to policies of the FERC, which regulates interstate petroleum products pipelines under the Interstate Commerce Act.

Enact Pipeline Affiliate Rules

FERC has previously adopted rules that apply to natural gas pipelines and electric transmission systems that govern the relationship with their affiliates, referred to as "affiliate rules" or "codes of conduct". The fundamental purpose of these rules is to prevent the pipeline or electric transmission provider from utilizing its transmission function—which is a regulated monopoly function—to benefit its affiliates that are market participants, usually energy marketers and traders.

These rules do not apply to petroleum products pipelines, including those that transport propane. Some of these pipeline operators are involved in selling propane, trading in propane, and exporting propane, among other things. NPGA is concerned, particularly after the challenging winter market conditions, that these intra-corporate relationships may have been utilized to the detriment of the interests of consumers. NPGA will be requesting that FERC adopt rules for petroleum product pipelines that are similar to those for natural gas pipelines and electric transmission providers.

In addition, pipelines have been removing certain terminal and storage assets from jurisdictional service and transferring these facilities to unregulated affiliates. The unregulated affiliates then are able to charge higher prices for the same services. The FERC has allowed these conversions to non-jurisdictional service based on an overly narrow definition of interstate transportation.

Review Pipeline Allocation and Information Rules

Throughout the Midwest, Northeast, and South during this winter petroleum products pipelines were severely constrained as to capacity. Market participants desired to transport propane to markets with critical needs, but the capacity was not available to do so. On many of the pipelines relied on by the propane industry, propane is only one of many products shipped by the pipelines. During pipeline capacity shortages, the pipelines allocate capacity based on summer pipeline usage. Currently, this capacity cannot be assigned to a different party.

According to Section 6 of the TEPPCO LPG pipeline tariff proration policy, which is similar to others in the industry:

> In no event will a capacity allocation to a LPG Shipper be used in such a manner that will enhance the allocated capacity of another LPG Shipper beyond the allocated capacity that such LPG Shipper would be entitled to under this Policy. Carrier may require written assurances from a responsible officer of LPG Shipper regarding its use of its allocated capacity stating that LPG Shipper has not violated this Policy. In the event any LPG Shipper shall, by any device, scheme or arrangement whatsoever, attempt to transfer all or any part of its allocated capacity to any other LPG Shipper in violation of this Policy, or in the event any LPG Shipper shall attempt to receive and use such portion of capacity, the portion of capacity allocated to each such LPG Shipper will be reduced in the next Allocation Period after the date that the violation is discovered by a volume equal to two times such attempted transfer.

In addition, under current rules, certain customer information, including shipper and volume information cannot be disclosed by the pipelines, making it impossible to determine who is shipping on the pipeline.

Such provisions prevent shippers of lower-value commodities or shippers with sufficient storage to meet near term requirements from releasing their pipeline capacity to shippers of high-value commodities, such as propane in the winter season, even though it might be to the economic advantage of both to do so. As a result, this winter propane shippers were unable to negotiate deals with shippers of other products such as diluents headed to the Canadian oil sands producers to increase propane shipments and reduce shipments of other products.

As this became apparent, FERC recognized the need to meet the essential needs of consumers and employed its emergency authority under the Interstate Commerce Act for the first time to ensure that an additional five hundred thousand barrels of propane were moved to Midwest and Northeast markets. NPGA commends FERC for its prompt action. Going forward, however, there may be other mechanisms to avert a recurrence. Certainly, affiliate rules, mentioned above, will give market participants confidence that the market is functioning in an above-board manner. In addition, FERC may be able to adopt mechanisms from other areas of its regulatory portfolio, including natural gas pipelines in order to ensure that market mechanisms are available to resolve pipeline allocation issues, instead of relying on emergency orders from FERC.

Revise Thresholds for the Use of Federal Emergency Authority

NPGA has worked closely with a number of federal agencies that maintain oversight over the supply, transportation, and distribution segments of the propane industry to obtain relief from their applicable regulations. However, NPGA believes revisions to the thresholds for triggering an agency's emergency authority would permit greater flexibility in addressing supply and infrastructure issues in the future. NPGA has identified several areas where the limited authority of the Department of Transportation (DOT) and DOE hampered their efforts to facilitate a rapid response to the evolving supply, transportation, and distribution crisis. Congress should review and revise these impediments to prompt action.

1. THE ROBERT T. STAFFORD ACT (P.L. 93-288, AS AMENDED)

The Stafford Act establishes the criteria under which the federal government responds to significant emergencies. An emergency declaration can only be requested of the President by the governors of the affected states. When requested, the Federal Emergency Management Agency performs an analysis to determine if the declaration is needed. If an emergency is declared, states must share a portion of the costs. Despite the severity of the propane situation this winter, this "all or nothing" aspect of a Stafford Act determination proved too high a threshold for state governors to embrace, and it foreclosed needed assistance to propane retailers and their consumers.

Among the many actions taken by NPGA this winter, it sought a waiver of the federal weight limits for trucks hauling propane on interstate highways. These limits are established by the DOT's Federal Highway Administration (FHWA). The purpose of the NPGA request was to allow trucks to load propane to the maximum permitted filling capacity of the truck. Due to highway weight restrictions, these trucks could only fill to within about fifteen to twenty percent of the maximum permitted level, essentially leaving the filling terminals with about 1200 to 1400 gallons less than they could carry with a waiver in place.

The FHWA has no statutory authority to grant a waiver from the weight restriction regulations. Unfortunately, the only mechanism by which a waiver could be granted would be for the President to declare an emergency using the authority provided him under the Stafford Act. Yet, as mentioned above, governors were unwilling to invoke the Stafford Act to lift weight restrictions given the other costs of doing so. Given the nature of the fuel emergency that existed, NPGA strongly supports amending the Stafford Act to provide for more limited waiver authority. Specifically, the Secretary of Transportation, perhaps in consultation with the Secretary of Energy and Governors, should have the authority to grant a waiver from the weight restrictions, either under the Stafford Act or under other legislation. This narrow action would go a long way toward ameliorating a fuel emergency or disaster without all of the complications and costs of a full-fledged Presidential emergency declaration.

2. THE JONES ACT

The Jones Act requires that all maritime shipments of any kind between U.S. ports (in the "coastwise trade") be aboard U.S.-flagged vessels. In our case, a marine shipment of propane from a port on the Texas Gulf Coast (PADD 3) to ports in New England (PADD 1a), for example, would have to be aboard a U.S.-flagged vessel.

The challenge in meeting this requirement is that there are currently no U.S.-flagged ships available to carry propane, leaving American consumers literally out in the cold.

Waterborne transport has the potential to be a critical component in addressing the overall supply and distribution challenges facing the propane industry in the Northeast. A shipment of American propane from Texas, where the world's largest underground propane storage is located, to New England would have made a significant impact on the supply issues in that region of the country, and also would have freed up transportation assets, including pipeline capacity and rail cars to deliver propane into the Midwest and other regions of the country. However, given propane production trends, a ship capable of transporting propane from the Gulf Coast to the Northeast likely would be utilized only a few times each year, and in some years, such as 2011/2012, would not be utilized at all.

Unfortunately, obtaining a waiver from the Jones Act is generally acknowledged to be nearly impossible. In order to obtain a waiver, the request must be made to the Department of Homeland Security's (DHS) Customs and Border Protection (CBP) agency. Once a waiver request is received, CBP consults with the DOT's Maritime Administration (MARAD) to determine if a U.S. ship is available. CBP also consults with DOE to assess the energy and fuels supply situation. This review and consultation is a time-consuming and arduous process.

During the last several months, NPGA has been engaged with DOE on propane supply and distribution matters at a frequency of at least three times a week, if not daily. DOE had the greatest knowledge of the state of the industry supply and would have been best positioned to grant a waiver from the Jones Act for a de minimis period of time. NPGA believes that in the context of fuel emergencies DOE should be given the authority to grant such waivers from the Jones Act.

3. HOURS OF SERVICE

The DOT Federal Motor Carrier Safety Administration (FMCSA) establishes Hours of Service (HOS) regulations that specify the number of hours that truck drivers may drive a commercial motor vehicle and that they may be on-duty. The HOS regulations were changed in 2013. The most significant change for long-haul drivers in the propane industry pertained to the "34-hour restart" provision. This provision permits drivers to "restart" their driving service if they have been off-duty and have not driven for 34 consecutive hours. Most importantly, FMCSA 2013 change required that the 34-hour period must also include two 1 a.m.-to-5 a.m. off-duty periods, in contrast to the previous requirement, which permitted 34 consecutive hours off duty. NPGA believes that the 2013 change resulted in a reduction of productivity of up to fifteen percent. During the 2013/2014 winter, this loss in productivity reduced the amount of fuel delivered. NPGA believes that the 2013 change resulted in no additional increment of safety, but this winter it resulted in a detriment to propane consumers.

During the height of the winter supply and distribution issues, FMCSA did issue regional waivers from HOS regulations for the Eastern, Midwestern, Southern and Western Service regions, which waived the 34-hour restart requirement and expedited propane shipments. Nevertheless, NPGA believes there is no evidence to suggest there is a reduction in safety by reverting to the previous requirement of 34 consecutive hours off duty (as opposed to requiring two 1 am to 5 am periods), and we would recommend the reinstatement of the previous regulatory requirement.

Expedite Increases in Storage Infrastructure

If there is one lesson learned from the 2013/2014 winter propane market conditions, it is that the infrastructure network was inadequate to meet consumer needs. There are a number of facets to this, and government can assist in ensuring that essential human needs are met.

Underground Storage

Since 2009 NPGA has argued that permitting and constructing expanded underground propane storage in the Finger Lakes area near Reading, NY is essential to meeting Northeast propane needs. We have called on Governor Cuomo to approve the facility, which would add over 88 million gallons of propane storage in a region where demand far exceeds local supplies. New Yorkers, and the entire New England region in general, are highly dependent on propane shipments from outside the region. New York is at the tail end of the TEPPCO pipeline, which delivers propane from major primary storage facilities in Mt. Belvieu, Texas. As discussed above, TEPPCO recently reversed part of its line to deliver ethane south to the Gulf Coast from the Marcellus-Utica Shale regions. This has inhibited the pipeline's capacity to deliver propane supply to New York. In addition, the closest major storage field

to the Finger Lakes storage facility, the Enterprise Todhunter storage facility on the TEPPCO Pipeline in Ohio, was recently shut down, further increasing the need for new storage capacity in this area of the country.

We have seen a number of challenges confronting the propane supply chain, ranging from pipeline shutdowns to rail strikes in Canada to ships not coming in on time from overseas. Supply lines can and do break during the winter, and they have caused shortages in the past. This winter, propane marketers found themselves needing to drive long distances to obtain supply. Drivers have obtained supply from destinations as far away as Apex, North Carolina, and Sarnia, Ontario. Having additional secure propane storage in New York would help ensure that fuel is available nearby. The propane industry is proposing to address these issues in a responsible way through initiatives like the Finger Lakes storage facility.

It is important to note that the mix of fuels used in New England is changing, and many fuel oil customers are shifting to cleaner-burning propane. It is cleaner in the house, and it is cleaner for the environment when it is consumed. As the propane industry expands in New England, we need to be able to store adequate supplies of propane reasonably close to serve these new customers.

Approval of the Finger Lakes facility will also improve the resilience of the propane infrastructure in the Southeast and Midwest regions of the United States. This winter, a major propane storage facility in Sarnia, Ontario, saw very high demand due to its close proximity to both the New England and upper Midwest regions. Sarnia storage was drawn down to below the 5-year minimum levels in March, which compounded other low storage in Michigan and surrounding states. Similarly, the propane storage facility in Apex, North Carolina, supplied significant volumes into New York and New England. Were the Finger Lakes facility to be in operation, it would dramatically reduce New York's demand for propane stored in Sarnia and Apex. Approval of Finger Lakes would have cascading benefits far beyond New York and New England.

Agriculture Storage Incentives

Unexpected demand by the record-setting crop-drying season caused a significant draw-down of propane supplies, particularly in the upper Midwest. This caused propane inventories to be lower than nominal as a colder-than-normal winter swept in. Storage at agricultural facilities is not particularly significant, requiring marketers to make multiple trips to some facilities sometimes as often as daily in the event of a large harvest. This experience has highlighted the significant impact that minimal storage at agricultural sites can have on the overall propane infrastructure, so we support incentives for farmers and crop dryers to increase their on-site storage capability. Such increased storage would have multiple benefits, including resilience in the face of unexpected demand; reducing the frequency marketers need to fill the storage; and more closely matching the capabilities of the crop drying equipment itself.

Permitting and Siting

Adequate propane storage at the secondary (retailer) and tertiary (customer) levels is critical as we enter the crop drying and heating seasons. Unfortunately, it is sometimes difficult to expand the propane storage infrastructure in the face of local opposition. Propane storage is highly regulated through building and fire codes, and the engineering of systems is standardized to a significant degree. The propane industry works closely with state and local officials to ensure a comfort level with propane storage, and this is an ongoing process. It is critical for state and local officials to allow propane storage to be built, maintained and expanded, so that the growing customer base of propane consumers can be served safely and efficiently.

ASSESSING INDUSTRY PRACTICES AND OPPORTUNITIES FOR INDUSTRY EDUCATION

The difficulty in meeting unexpected propane demand efficiently this winter can in part be attributed to industry business practices that have taken hold in response to shifts in market conditions over the last 20 years. Consumer propane sales have fallen by more than 24 percent between 2000 and 2010. Moreover, retail propane jobs fell by more than 20 percent during the same period. This has been the result of a number of factors, including competition from other energy sources, as well as improvements in appliance and building efficiency.

Consumer education plays a role in lessening the risk of supply shortage. NPGA believes it is critical for consumers to build a relationship with a local propane supplier and to buy their fuel well in advance.

Propane customers typically fall into two categories: "keep full" customers, those who enter into a contractual agreement with a propane retailer to keep their tanks full; and "will call" customers, those who choose not to enter into a contract with

a retailer and instead choose to buy their propane supply on their own. The "keep full" customer benefits from the security that their energy needs will be met, and retailers benefit from the certainty of being able to plan ahead for their customers' fuel needs. "Will call" customers must manage their own supply level, price shop for fuel, and ensure their system is in proper working order. "Will call" customers typically have a lower priority compared to "keep full" customers when system demands are high. Such customers are much more vulnerable to market variability and supply disruptions—like the ones resulting from this winter's supply, demand, and infrastructure challenges. NPGA will redouble its efforts to encourage consumers to build a relationship with a retailer in their area to make sure that their energy needs are met.

Many consumers can also fill their tanks in the summer, planning ahead for winter heating. This can also have the added benefit of lower off-season propane prices. Unfortunately, many propane customers are unable to afford to tie up their available cash by refilling their tanks during the summer. For these customers, one additional way to increase certainty of propane supply in the winter heating months is for customers to enroll in a budget plan with their marketer. This allows the costs of fuel to be spread over the entire year, making it more affordable than paying for a full tank all at once.

CONCLUSION

As we analyze the causes of the problems encountered during the winter of 2013/2014, NPGA's goal is to ensure that such a situation never happens again. NPGA has established a Supply and Infrastructure Task Force charged with conducting a comprehensive post-winter analysis to identify causes and contributing factors, and analyze, debate, and provide recommendations for future efforts and strategy as it relates to propane supply, distribution and infrastructure. We intend to pursue the Task Force's policies and recommendations aggressively, and we anticipate that our efforts will focus on public policies, industry operations and practices, and consumer needs. We look forward to keeping you informed of our progress as we move forward.

NPGA and its members appreciate the opportunity to present their perspective on these important issues to the Committee.

Thank you.

The CHAIR. Thank you all very much. This was an excellent panel. Your presentations were very heartfelt and specific with suggestions. I thank you so very much.

Senator Portman has arrived and since we gave everyone else a minute to open, I thought we would allow him to just give a minute of opening remarks. Then I have a series of questions, turn that over then to the ranking member and then Senator Franken is going to Chair the rest of this meeting.

Senator PORTMAN. Great.

First of all, thank you for holding this hearing. To you and Senator Murkowski for letting us have an opportunity to get the information that we just got from this great group of panelists.

Ohio is one of the States hit. Mr. Cordill mentioned Ohio. We've got about 240,000 people who saw their prices spike substantially.

We heard, I think, from Ms. Kenderdine that it's almost a doubling of prices in Ohio. We went up to $3.90 a gallon. As a result some of us, including Senator Franken, who's here, Senator Hoeven and I have sent a letter to the President looking for some help from the Federal agencies.

I appreciate the fact that everybody kind of pitched in. We avoided, therefore in Ohio, having a widespread situation where we actually ran out of supply. That didn't happen. But we came awful close.

Obviously we had a lot of family budgets that were stretched really thin and then some businesses as Mr. Zimmerman said. So again, to Chairman Landrieu and to Ranking Member Murkowski,

thanks for letting us have this hearing. I look forward to further dialog with the panelists here to talk about solutions.

The CHAIR. Thank you very much, Senator.

Let me begin with asking all the panelists, just really quickly, yes or no? We had some excellent suggestions from all of you.

Mr. Zimmerman said advance notification, some sort of trigger mechanism, increased storage capacity in the places it's necessary. Someone mentioned Finger Lakes. Then a better FEMA response, which I most certainly can understand and those in the short term.

In the long run some expedited permitting.

I'm going to start with you, Ms. Kenderdine. Can you say yes or no? Do these things make sense to you in trying to solve this problem which has to be solved quickly and comprehensively?

Ms. KENDERDINE. I think many of those are excellent suggestions.

The CHAIR. What would you add?

Ms. KENDERDINE. Certainly from the Department's perspective I do think that we need more granular information about what is going on in the marketplace. There are issues when you start collecting information that is that specific. There are proprietary concerns on the part of the industry.

There's a cost to the industry when you do those types of surveys. There's a cost to the government as well.

So from our perspective we could use, I think, we would like to work with you all and the industry to develop additional information that is not unduly burdensome to the industry. I think that that would be very helpful.

The CHAIR. Thank you.

Mr. Nichols, do those sound like good steps to you and something that you could generally support?

If not, why?

If it's not complete what would you add?

Mr. NICHOLS. I think many of those ideas sound excellent.

As an independent regulatory agency, again, we can only act within the limits of our statutory authority. When we tend to depart from that the courts rein us in very quickly.

The CHAIR. Let me ask you this.

What one or two authorities can you immediately see that you would like to have that you don't that could have helped in this situation? You don't have to give me the whole list, but just the first two that come to your mind.

Mr. NICHOLS. The emergency authority we have is extraordinarily broad. I think if it is challenged it would be very helpful for this body to clarify the nature of that authority.

The CHAIR. Make it clearer.

Mr. NICHOLS. But being that it is extremely broad I see us as having great freedom to apply it as we see necessary.

The CHAIR. Mr. Black, same question to you.

Mr. BLACK. Thank you, Senator.

Two of Mr. Zimmerman's suggestions go straight to how pipelines can be part of the solution to making sure this doesn't happen again in future winters.

One, he mentioned perhaps ease in siting of a dedicated propane line. Our member companies would love to build a dedicated pro-

pane line for shippers willing to sign a long term contract to finance that.

Second was increased development of storage, particularly downstream, local, regional storage that can help get through a tough winter. We think that's appropriate as well.

The CHAIR. Thank you.

Mr. Cordill.

Mr. CORDILL. All of those things certainly are worth considering coming into play.

I did mention ones. I did mention the availability of the Finger Lakes storage. That's an 88 million gallon storage cavern in the Finger Lakes region of New York that was previously used for natural gas storage and has been converted and is rated to be used for propane storage. But we're awaiting the authority from the New York State government to place that facility into service.

The CHAIR. Has it received its permission from EPA? Did it need a Federal permit or just a State permit?

Mr. CORDILL. At this point in time the only thing lacking is the go ahead from the State.

The CHAIR. OK. That's good to know.

Mr. Zimmerman.

Mr. ZIMMERMAN. I like those suggestions.

The CHAIR. Because they were yours.

[Laughter.]

Mr. ZIMMERMAN. You know, in addition, storage on farm is very important to us and our members and growers. Companies such as Cenex Harvest States are adding storage around the State as we speak. I think that's one way to help, but even if we have, you know, we can only have so much storage.

We still need to get the fuel when we need it and that goes back to infrastructure issues. I think that's at the crux of the issue for us is we either need to bring it on pipelines, trucks or trains. We just need to be able to bring it in when we need it. I think that's the biggest issue for us is an infrastructure issue. We need to work on our infrastructure.

The CHAIR. But storage closer to the users would actually help, some sort of reservoir closer to you would help at least get it closer to you. You still have some transportation issues. But at least you're not starting from the source.

So maybe something like that Finger Lakes could potentially help. I'm not sure at its capacity how much it would, you know, be able to supply. But——

Mr. ZIMMERMAN. I believe, you know, Conway, Kansas is our closest natural storage facility. But if the Finger Lakes project was there, obviously, you know, fuel that is needed in anyplace in the country, if we can then help lessen the need in the Northeast they'll be more supply for the Midwest.

So, you know, that's a great suggestion, the Finger Lakes project.

The CHAIR. Mr. France.

Mr. FRANCE. I agree, storage is critical. The Finger Lakes project is a site that's ready to go right away because the shortage problems are the pressure on the pipelines is more than regional. The people from Minnesota now will start coming to our area in Pine

Bend, Rosemount area or Janesville, which will put more pressure on Wisconsin people because of more people coming to the pipeline.

So the more storage facilities we have will make the pipelines more effective. The other thing that would also be a benefit to our marketers would be—it was stated that there's pipeline capacity. But we need more year round capacity so we need more products.

We do have a provision in the Department of Commerce that is restricting us from helping to educate our customers in promoting new products so that we could have more year round use of the pipelines.

The CHAIR. OK.

I'm going to turn this over to Senator Murkowski.

But I would like to explore more, Mr. Black. You said we have enough pipelines.

Mr. France, you said we need more or you said we could dedicate something, you know, propane pipeline. There's some issues about exports as well. So let's hone some of those.

Thank you very much. I'm going to turn it over to Senator Murkowski.

Then turn the gavel over to Senator Franken.

Senator MURKOWSKI. Thank you, Madame Chairman.

You know, just trying to figure out how we keep this from happening again. To hear, OK, we've got the pipeline capacity, but so much of this is an issue of timing. Anticipating whether or not you're going to have a historic year when it comes to really, a tough winter.

We can all look at the Farmer's Almanac, but I don't know how reliable that is anymore. I shouldn't say anything bad about it. I'm not a farmer. I don't pretend to be.

But it does speak to the issue of how we anticipate. This is where the storage issue, I think, really does play a critical role.

Mr. Cordill, I think you were the one that mentioned that we needed to do more or maybe it was you, Mr. Zimmerman, to expedite the permitting for storage. How big of a problem is the permitting process?

Now Senator Landrieu has indicated that with this particular storage facility that we're talking about is just the State hold up. But is this an issue generally where we're having problems with permitting?

Mr. CORDILL. The issue with storage permitting is twofold. If we're talking about storage that is able to actually keep enough product in a region, we're talking about underground salt caverns. That's a long——

Senator MURKOWSKI. Not unlike we do with the strategic petroleum reserve?

Mr. CORDILL. Something, you know, like that. That's a long term project. It would require EPA and very long permitting process.

One other factor is that where the marketers have been willing to add above ground storage to their existing bulk plants that we referred to them.

Senator MURKOWSKI. Um hmm.

Mr. CORDILL. They run into the local siting problems. Whether they're building new plants or simply wanting to expand their plants, people of local jurisdictions object to that on whatever rea-

son, whether they're using unsupported safety information or what have you. They just don't want to see that additional storage in their backyards.

Senator MURKOWSKI. Hmm.

Let me ask the question about how this all intersects with what we saw with the increased production in corn this past year. How much did the increased corn production play into the supply draw downs?

What I think I've heard is that we had sufficient propane supply out there, but did we?

Ms. Kenderdine, I'll direct this to you because you're leading DOE's effort on this Quadrennial Energy Review. Have you looked into this interplay of how the propane crisis factors into what was going on with the increased production of corn and really then that corn for export issue?

How does that all come together?

Ms. KENDERDINE. I think you've put your finger on a lot of larger issues. It is in those larger issues are why we are looking at energy infrastructure in the Quadrennial Energy Review.

Theere is competition, certainly for rail space, barge space and truck space, between for example, ethanol, corn, fertilizer, coal, oil, propane and other petroleum products. So at EIA we collect information on energy products, supply, demand, etcetera, etcetera. But what you're seeing is a lot more interdependencies of different infrastructures and moving these products around.

We have been looking at and we will look at in the Quadrennial Energy Review, we are doing regional fuel resiliency studies because there are very regional issues. You could do a national study and it might not give you the solutions you want because so much of our energy is regionalized both in supply, demand and infrastructure. So we are doing those regional infrastructure resiliency studies.

They will start with the PADDs, the oil districts. But we will also look at things like electricity. You saw in Hurricane Sandy interdependency between fuel and electricity. In that instance there was fuel supply there as well. But the gas pumps wouldn't work because the electricity was down. So we are looking at a range of issues like that.

I just want to throw out one or a couple of factoids, actually facts.

I think in 2006 there were 4,000 rail cars transporting oil. In 2013 there were 425,000 rail cars transporting oil. I didn't come into this job thinking I was going to be looking at the rail infrastructure, I work for the Department of Energy. But it is enormously important.

Everything is changing. Our infrastructures are changing. We need to take a much broader systems look at all of these things. That's what we're doing in the QER.

Senator MURKOWSKI. Yes, I think that will be fascinating insight when we get to that.

Mr. Chairman.

Senator FRANKEN [PRESIDING]. Thank you.

Ms. Kenderdine, when you talk about that rail issue with oil and crude. Boy, is that a big deal in Minnesota right now. I know, else-

where because our farmers, our utilities, they're all experiencing delays and uncertainty in terms of their shipping and receiving what they need and shipping what they need to ship.

I'm going to go through this real quick. See if I can do this as quick as I can, exactly. If we all agree what the—and I think we've mentioned them and everyone has overlapped on this.

But what we had was kind of a low supply. Mr. Black talked about what people had bought.

Now if you look at that people don't buy propane during the summer. They just don't. So that made a lot of sense.

But also because the Energy Information Agency had actually made some kind of projection as to the cost increase over the winter of propane and it was like a very, very small projection. I think we have an issue of bad data or estimates that were given by DOE, through EIA, that discouraged the accumulation of supply.

We saw the very low supply in Conway. If I'm right, was about a third full at the beginning of the winter. So, I think, that was a big issue.

We had the large and wet, very wet harvest.

We had the terrible winter.

We had pipeline disruptions. We're going to talk a little bit about Cochin because that was down for a good month or so. Now starting on July 1, they're going to be reversing their line and we're not going to, in Minnesota, where we used to rely on 40 percent of our propane from there, we're not going to be getting any. We have to find ways to replace that.

So we had the pipeline disruptions.

We had a lack of coordination. Some of that is about the authority to share information. The granularity of the data as has been brought up.

Then we have the increased exports.

Then we, sort of, had the absence of certain authorities to pull the trigger on—in the way that FERC did finally on the enterprise. I'm not saying you did this slowly. I'm just saying.

Did I miss anything? Is that the summary of what was the cause of this?

Yes, OK. I think I got it. OK.

So, what to do next?

Now Mr. Black, you were talking about, you showed these charts. The charts, of course, made a lot of sense if you think about what happens during the summer. No one buys propane because they're not.

Now, Mr. France said there should be other uses of propane that other propane products to sell that maybe could mean that we are—that would help the resilience because all year round there would be. But I'm not sure that that's terribly realistic. I think we have a seasonal thing here.

Anybody disagree?

Yes?

Mr. BLACK. If I may, Senator, Mr. France's testimony, I thought, well put propane customers into two different categories, some that always want to be full and always want to be prepared and some who, kind of, wait and call when they're empty and think about when the price is right. You're right. Some people don't buy pro-

pane in the summer, but they can. The two of the gentlemen's companies here, I'm sure, would be happy to sell propane in the summer. Collectively propane market participants can ship propane over the summer, over that spare pipeline capacity, to have it ready.

Senator FRANKEN. I understand that. But that goes to Mr. Zimmerman's point which is that there's only so much storage outside of the big storage in Conway and in now, Belvieu and maybe sometime in the Finger Lakes. You can only fill so many tanks. Am I right?

Mr. ZIMMERMAN. That's correct. You know, I know we're building more near Glenwood, Minnesota and some other places. But, you know, there is local governments, local—and people do not like these huge tank farms either. So, I mean, there's only so much you can do. I think we're doing as much as we possibly can as far as local tank storage.

Senator FRANKEN. So what we need is one, somebody, maybe a number of you, talked about an early warning system. So we need an early warning system. That means we need more granular information.

Do you need more authorities, Ms. Kenderdine, because we asked Mr. Nichols if he needed more authorities and he said his authority in an emergency was broad which, so we don't want to define something that's broad to be more narrow? But do you need any more authorities?

Ms. KENDERDINE. I would say a few things.

I mentioned the coordinated effort of the Federal Government. With that coordination I think you had the adequate authorities to deal with the crisis.

Setting aside an early warning system I would say that EIA's forecasts on price increases were off. I think probably if you look at their forecast over 5 years you'll see a pretty accurate. I think they do incredible work.

Weather forecasts were off as well. The winter forecast from NOAA said that it was going to be—they expected additional—a colder than normal weather in Northern Minnesota. But warmer than Northern—warmer weather in New England and in the South which was not the case and all of those regions put a huge draw on propane supply.

But when we coordinated our efforts, I think we all had adequate authorities. I would say many of the statutory authorities for energy in general are not appropriately a match to the energy situation we have in this country now. They were developed in a time of scarcity and we are in the time of abundance.

That's one of the things we are looking at in the Quadrennial Energy Review—to see about the adequacy of our laws and regulations to incentivize the infrastructure we need.

The Department of Energy, I would say, has a long history of emergency response in the nuclear area. We do have nuclear weapons, but that's an inherently government function with the exception——

Senator FRANKEN. Which I think it should be.

Ms. KENDERDINE. Yes, it should be, yes.

Senator FRANKEN. OK. You know what I'm going to do? I'm going to——

Ms. KENDERDINE. I don't want to change that.

Senator FRANKEN. Yes.

I want to hand this off. We're now into an area where—I think my clock wasn't running. So I want give it to Senator Baldwin.

Let's just have a discussion, however long we need.

Senator Baldwin, you have first 5 minutes. Then we'll just kick it back and forth.

Senator BALDWIN. Sounds great.

Thank you, Mr. Chairman.

I thought the panel did a great job of, sort of, laying out a review of what happened in the past year. There's one piece of it that I want to just tease out a little bit that didn't get much attention.

We were talking about distribution with pipelines and trains and trucks. One of the discussion points during the unfolding of this crisis was actually the need to intervene and ask for a change of the hours of service rules for truckers because of long waits.

Mr. France, first of all thank you for coming and taking the time to testify.

I'm wondering if you could talk a little bit about the challenges that dealers in Wisconsin and other crisis States, who are participants in your association, what they did to get the fuel, the propane, for their customers. If you do have any stories to share about those who, you know, I heard stories of people driving as far as Mississippi and Texas to be able to receive loads of propane to serve their customers.

Why did we have to intervene in the hours of service?

Mr. FRANCE. Thank you, Senator.

My personal story is we started out the season—two years ago when we had notice that the Cochin was going to be closing down I added more storage. I had it full. I had my customers full. But then all of a sudden in December and January the terminal started going on allocation. I, from that point on, I could not get my storage full, the 45 or 50 percent is the most that I had in my storage most of the winter.

We had long lines. Some of the transports had to wait in line as much as 8 to 12 hours. They charged me back $65 an hour which either I had to absorb or pass on to my customers which wasn't right.

So it is true that we had some struggles, but I have no known cases. We delivered. We got all the product out there. That did mean some marketers drove as far as Mont Belvieu, Texas, Conway, Kansas, to go and get a load of gas because it was—if you had to have a transport wait in line for 12 hours at a terminal they could drive for another 6 or 7 hours, get a load of gas and be back in the same time as that they would have got their load waiting in line.

So that was very difficult to get the amount of gas that one transport which we'd probably do in 3 or 4 loads a day was now only doing one every 4 days. Without the hours of service extension these fellas would have to wait or have to double shift a driver. Our productivity and efficiency went way down.

But after one or 2 weeks of these types of situations, waiting in line and not getting the productivity from transport, we were just getting farther back behind every day. The weather was not subsiding. We were just having sustained cold weather. So we knew that we had to take immediate action. We couldn't wait. Whereas in other years we didn't have the type of weather we had this year.

Senator BALDWIN. Thank you.

On the topic of storage and upping the inventory available, in fact there was a previous hearing that we had on a different topic, but one of the witnesses said we should think about a strategic propane reserve in much the way we think about other necessary fuels.

But that said, during the crisis this winter there were reports that the Conway bulk storage site was close to empty. so I'm curious to know what would be the impact of ensuring that such a major shortage hub retained a certain level of stock going into each heating season. Then I want to talk a little bit more about the data issue that has been delved into.

But Ms. Kenderdine, could you speak to that?

Also, Mr. Nichols?

Ms. KENDERDINE. Both Secretary Moniz and I were at the Department of Energy in the Clinton Administration. I was there for all 8 years, when we set up the Northeast Home Heating Oil Reserve. So we both supported it and are sympathetic to those regional fuel needs.

In that instance when we set it up the inventories going into 2000, the heating oil inventories were 72 percent lower than they had been the previous winter which was a bad winter. So we took action early and it still exists today. That was, however, in an environment where we had scarce energy supplies in the United States.

Right now everything is in a state of flux. Again, that's why we are looking at our energy infrastructures because the location of our energy production has changed dramatically. The infrastructures have not caught up with it.

We would certainly be in these regional fuel resiliency studies that we are doing as part of the QER, looking at what is the most effective way for the different regions to have resilient fuel infrastructures, fueling infrastructures. Reserves are certainly something that we will be looking at and we just want to make sure that we are solving the right problem.

That's what this analysis is about, so.

Senator BALDWIN. Mr. Nichols.

Mr. NICHOLS. Senator, the Commission does not have jurisdiction over product storage facilities. So we do not collect any information on what levels of inventories they contain.

In the same vein because of the way the Interstate Commerce Act is constructed, we do not necessarily know the identity of shippers on any given pipeline, what they're shipping, the amounts they're shipping, the origins and destinations of those shipments. So we really operate in an information vacuum with regard to supplies of the commodity around the Nation.

Senator BALDWIN. Back to Ms. Kenderdine.

So the propane industry has called for EIA to publish a weekly storage report on propane to enhance transparency on spot and fu-

ture markets. We've heard a lot of testimony about the need for more granular information.

Had such information been available on storage levels across geographic areas in the United States, how would that play a role in averting future shortages?

Ms. KENDERDINE. I don't want to give an incorrect forecast on that question but the——

Senator BALDWIN. You've said that more granular information would be helpful.

Ms. KENDERDINE. Right, right, but I want to be careful not to forecast.

Senator FRANKEN. We want a hard prediction.

Ms. KENDERDINE. What I would say is EIA does do from, I think it's October to March, they have the shop program that I mentioned where they do work with the States to develop heating oil and propane information. I think we should expand that program.

As I mentioned earlier the issue with getting more granular information, I think we have information on, kind of, the terminal storage at this point in time, getting down to secondary and tertiary storage is not information that we currently collect. That's when it starts getting—we don't want to make that kind of data collection burdensome or expensive to the distributors. You're talking to some very small businesses here.

So we need to work with the industry, work with the Congress, work with trade associations and see what we can come up with that might be both meaningful and not burdensome. I would say, but I would say, that we rely on the private sector in our energy—for our energy systems and markets. So good information makes them more efficient and that's what we need in order to meet crises like the one we just had.

Senator BALDWIN. Thank you.

Senator FRANKEN. Mr. Cordill.

Mr. CORDILL. Thank you.

If I may comment on that? As a way of explanation secondary storage is the product that's at my facility. Tertiary storage is what's on the customer's tanks. OK.

We would welcome, greatly welcome, better storage information, more transparency. We get the overall figures that EIA provides but that's lumped up into regionals. Conway only represents maybe half of the available storage in that PADD.

So we see the number, but we don't know where that product is. We don't know who owns it. We don't know how much of it's already committed or under contract.

So just because it's in storage does not mean it's available for purchase and shipment up into these areas. So any additional information that we could get as marketers would be greatly appreciated.

If FERC is acting in a vacuum, we don't miss a small marker. We don't have a clue what's going on out there. So there's no way that you can have too much information to make business decisions.

Mr. FRANCE. I'll agree with Joe on that.

I was at the Minnesota Propane Gas Association meeting the last week of January. At that time we were right in the midst of the

extremely cold weather. But no one had an idea how much product was in Conway, Kansas.

Everyone was guessing. They didn't know if it was a week, 10 days or a month and if we had some transparency and some information. There's nothing worse than uncertainty. If there's uncertainty people can't make good business decisions and you're allowing the market not to work properly.

But that would definitely have been a help at that time this winter.

Senator BALDWIN. Thank you.

Senator FRANKEN. Senator Hoeven has arrived.

So, sir?

Senator HOEVEN. Thank you, Mr.——

Senator FRANKEN. I know you look surprised, but I'm the Chairman right now.

[Laughter.]

Senator HOEVEN. I am a little surprised.

Senator FRANKEN. Yes, I know. I can see. I can see that. But I'm calling on you.

Senator HOEVEN. But I like——

Senator FRANKEN. You're using some of your time.

Senator HOEVEN. Oh.

[Laughter.]

Senator FRANKEN. No, you're not. Go ahead.

[Laughter.]

Senator HOEVEN. Thank you, Mr. Chairman.

Thank you to the witnesses for being here, appreciate it very much.

I'd like to start with Mr. France and then also Mr. Nichols. Specifically the first question is we had a propane shortage throughout the Midwest last winter. I understand it was a cold winter, obviously, but very serious propane shortage and even had, in our State, at least one individual who died because she ran out of propane.

So my first question, specifically, is what caused the shortage? Granted, it was a long, cold winter, but we should have some capacity to react to that. So if perhaps, Mr. France, you could start and then Mr. Nichols, why were we short of propane?

Mr. FRANCE. As we stated earlier we started out with what we thought were adequate inventories. We then had an extremely wet crop drying season, followed by sustained cold weather. There was some pipeline down time.

There was some refinery issues. It all came up to a bunch of congestion that we couldn't deliver on time.

In some ways it's kind of a fallacy. We really, we had the propane, but we just couldn't get it where it needed to be at the right time, was one of the biggest problems.

Senator HOEVEN. So, Mr. Nichols, could you address why that is? Why we weren't able to get it to where we needed it?

Mr. NICHOLS. Sir, what I can tell you is that under the Interstate Commerce Act the Federal Energy Regulatory Commission regulates the rates and terms and conditions of natural gas, I'm sorry, oil and product pipeline tariffs. We do not collect information on supplies. I can tell you anecdotally that I understand it was due

to the Polar Vortex, to a large, wet corn crop that came in late that required a lot of propane to dry and that we entered the propane heating system with low supplies of propane in storage.

Senator HOEVEN. But Mr. France just indicated that there was product. We weren't able to get it where it needed to go. Why is that?

Mr. NICHOLS. Pipelines ship product. Shippers nominate the product that goes over. The pipelines do not control what gets shipped on their pipelines. They're offering solely a transportation service.

We at FERC have no jurisdiction to determine or require who ships what. On many of these batch pipelines you have jet fuel, you have ultra low sulfur diesel, motor gasoline and so forth being shipped. But under the law we, the way the law is constructed, we do not know who is shipping or what is shipped, from where they're shipping or to what the destination they're shipping to.

So we operate largely in an information vacuum as a result of the structure of the Interstate Commerce Act.

Senator HOEVEN. Ms. Kenderdine, why weren't we able to get the product where it needed to go and how do we prevent this type of situation in the future?

Ms. KENDERDINE. I think as was mentioned, there was fundamentally a collision of events.

There were pipelines that were down for repair.

There was a reversal of one pipeline and that's due to fundamentally changing where we are producing and consuming energy in this country.

We had an extremely cold winter.

There were, at market conditions, that discouraged the holding of inventory.

So all of those things came together to cause very significant price spikes and difficulty.

It was also that just moving product when you have a lot of snow. You had difficulty with train shipments. You had difficulty with barge shipments. You had, as I said, pipelines that needed repair.

So the harsh winter also affected other systems, barge traffic, other systems and how you move that product around.

So it was a confluence of those events.

Senator HOEVEN. Starting with you, Ms. Kenderdine and I will wrap up here, Mr. Chairman. I appreciate the indulgence in the time. I see my clock is not running. So I just want to commend you for the job you're doing as Chairman.

[Laughter.]

Senator FRANKEN. I don't know. I, somehow think that's like a backhanded compliment.

[Laughter.]

Senator HOEVEN. Not at all.

I will make this my last question. But I'd like each of you to ask of it. I think it is important.

What can we do? What do we need to do so we don't repeat this situation?

What kind of steps can we take, concrete steps, so we don't find ourselves so that we can react if there is a shortage? If we find,

you know, very cold conditions? What practical things can we do and should we do so we don't find ourselves back in this situation in the future?

If you would start, Ms. Kenderdine?

Ms. KENDERDINE. The, as I mentioned earlier, NASEO, National Association of State Elected Energy Officials. You're elected officials, Energy Officials. They put out a list of recommendations. We participated in workshops. They did next steps.

There was a significant—DOE was identified in there, in those next steps, that they would like to see happen, primarily in its role in collecting and analyzing and disseminating information and data. They also lent their support to our Quadrennial Energy Review which is focusing on infrastructure where we will be looking at regional fuel resiliency and making recommendations about what we need to do to enhance our infrastructure.

Senator HOEVEN. In fact we'll be in our State talking about the Quadrennial Energy Review, something we've worked with DOE on. So that's good. I hope we can use that as an opportunity to deal with this issue as well as, of course, many others.

Ms. KENDERDINE. It's a very big issue in your State, certainly.

Senator HOEVEN. Big issue.

Mr. Nichols.

Mr. NICHOLS. We can interact with industry, Congress, Governors and other agencies, both State and Federal, to understand what is happening in the affected industry, in this case, the propane industry.

FERC can also use its emergency powers to order prioritization of shipments which we did this past winter for the first time.

We can order more granular level.

We can act on terror filings and complaints that come in and alleging problems with discrimination, that sort of thing.

Thank you.

Senator HOEVEN. Mr. Black.

Mr. BLACK. Senator, you and your colleagues could encourage propane consumers to fill their tanks in the summer and the early fall before supplies get tight.

You could encourage propane market participants to use spare capacity on propane pipelines, again, in the spring and the summer and early fall when there are millions of barrels of spare pipeline capacity.

That may give the propane sector more confidence to increase local inventory levels as you head into winter in case it's a tough winter and a tough crop.

Senator HOEVEN. Mr. Cordill.

Mr. CORDILL. With all due respect to Mr. Black's comments about utilizing summer capacity, there is no where to put that propane once you get it up the line during that time of the year.

Senator HOEVEN. So what you're—but——

Mr. CORDILL. Storage is full.

Senator HOEVEN. What would you recommend then?

Mr. CORDILL. Pardon me?

Senator HOEVEN. What would you recommend to try to prevent a similar situation?

Mr. CORDILL. The transparency of the shippers would help tremendously, transparency of the information that EIA can give us. As a marketer we don't necessarily know.

We buy product from brokers, who may or may not be shippers on the pipeline. They may buy it from shippers. But there is no information flow as to who the shippers are and how much product they control and where it's available.

So there needs to be more general, open market information.

The emergency order to send product up the line was quite helpful when it happened. But I think with enough given flow and exchange of information we could have the free market solution that would allow the pipelines to maximize the use of their facilities, maximize their profits and yet still provide us with timely service.

As, you know, as much as we would like to be able to have a nice level business year round, propane is a seasonal product. But if you looked at charts of the natural gas pipeline deliverability and their product shipments and the electric utilities, you would find that same seasonal curve in their products. It's a fact of life.

But we have to come up with a way to overcome that and have adequate supply during the timely part of the year.

Senator HOEVEN. Mr. Zimmerman.

Mr. ZIMMERMAN. I would echo what others have said.

Communication is very important. If we knew that inventories were low we could plan ahead.

That being said, I have so much storage space on my farm and I can definitely add more, but I don't know if I can afford to fill it in the summertime.

Senator HOEVEN. Right. It's a cost issue.

Mr. ZIMMERMAN. Yes.

So I mean that's another issue.

So the emergency response and what happened this winter when Senator Franken helped us immensely. But if that could be streamlined in such a way that if this does get to this point in the future, FERC's response in opening up the pipeline shipments could happen quicker. So, more streamlining of the emergency response would be very helpful.

Senator HOEVEN. You were referring to Chairman Franken there, when you——

Mr. ZIMMERMAN. Chairman Franken, the esteemed Senator from Minnesota.

[Laughter.]

Senator HOEVEN. Yes.

Mr. France.

Mr. FRANCE. I agree with Joe. It's so important to have transparency because the energy market or the infrastructure system is changing dramatically. It's not what it was before. The fracking and shale formations have made. We're a different country than what we were in terms of energy than what we were 5 or 6 years ago.

So some of those pipelines are not working the same way, they've reversed what was before.

So the more transparency, the more information marketers can have and the industry can have we'll be more capable of making

better decisions so we know what we have to plan for and prepare for the coming year.

Also, we do know that if we want to make our pipelines more effective we need to have adequate storage for when we do have a storage facility that's available to be used, such as the Finger Lakes. Let's do whatever we can to make sure that that happens so that we can have the storage and the capability to deliver. Because believe me, I, as an independent marketer representing our association, we don't want this any more than our consumers do because it hurt us just as much.

So, we're all in it to make sure that the industry is well served and our customers.

Senator HOEVEN. Thank you.

I'd like to again thank all the witnesses and also, Mr. Chairman for the additional time and your indulgence.

Thanks.

Senator FRANKEN. Thank you.

The clock wasn't running because Chairman Landrieu didn't give me the key to the timer.

[Laughter.]

Senator FRANKEN. That's actually Senator Baldwin's joke.

[Laughter.]

Senator FRANKEN. She gets credit for that one.

Let's kind of open it up. Just jump in any time.

I'm hearing two big messages with transparency. No one seems to have an objection to increased transparency. But I'm feeling like maybe there's someone here who would have that. Does anyone anticipate that? That's one question.

I want to have everyone respond to that or anyone who wants to respond to that, respond to that, in relation to this because we've talked about what we did, what the emergency response was. Mr. Zimmerman talked about what we did and how helpful it was.

It seemed late. That's the big take away that I have here that we're not really addressing. Part of it was lack of transparency while we were in the middle of this. We knew about it.

But it seemed like the reaction to the Energy Information Agency's wrong forecast which probably could have changed after the wet harvest. They could have changed their forecast. It got cold pretty early.

It seems to me that another question we really haven't asked is why—I know we've talked about an early warning system. But this was really late in the game before these emergency responses really started.

Why were we so slow to react? What is it about the system that we weren't, in January, going like it's really cold now. It was a really wet fall. We've have some pipeline disruptions. We don't know what's in Conway.

Hey, everybody, let's react. What was that about?

Ms. KENDERDINE. I'll jump in and take the bait.

First on transparency, I think that what you would see at some point you start talking about proprietary information. There are anti-trust issues that you have to deal with. When you get into that proprietary information it's sensitive because these are com-

petitive players in the market and that information could give one or another competitive advantage.

So you've got to be very careful. That's why it has to be an agreed upon process.

Senator FRANKEN. Who are the players that would be worrying about that proprietary information?

Ms. KENDERDINE. Perhaps your large distributors, your small distributors, you know, it's—FERC might have some thoughts on that as well, but I know that——

Senator FRANKEN. I mean, is there someone at this table who would, maybe, put their finger on who that might be or is there someone at the table who might worry about their proprietary information?

Mr. BLACK. So pipelines move what shippers ask them to move. But pipelines live under the Interstate Commerce Act which was enacted—applied to oil pipelines in 1906 when Congress and Theodore Roosevelt were cleaning up the oil sector. So right now it's unlawful for a pipeline to disclose to any other shipper, without the consent of the shipper, all those things that Mr. Nichols mentioned in his testimony, the nature, the kind, the quantity, the destination, the consignee, the routing of any property.

We don't own it. But right now pipeline operators are not supposed to tell anybody else because of the concern back then that there was a lot of speculation and market abuse and a competitive behavior going on with those who had access to that information when others did not. Pipelines don't own that product.

But that's what the pipeline operators live under. So when I hear you talking about transparency I think, we have this law that Congress enacted to curb anti-competitive behavior by others by, those propane, anybody who is participating in these commodity markets, as Ms. Kenderdine said.

Senator FRANKEN. OK. I think we've hit ourselves on a problem.

Mr. NICHOLS. May I just add that it's a criminal violation to violate that statute.

Ms. KENDERDINE. We start many, many meetings reading with the lawyers, reading anti-trust language to us. So it happens all the time.

Senator FRANKEN. OK, so we have some competing goods that we're trying to avoid speculation and illegal use of proprietary information for competitive advantage. At the other end we want the good of having some transparency so we can avoid this.

Anyone either want to speak to that or what was at the nub of identifying this so late of our reacting so slowly?

Mr. CORDILL. Senator Franken, I would like to address that. I'll ask Kaitlin to put back up the inventory charts.

It's a little misconception that we went into the season with abnormally low inventories. If you'll look back at these charts you'll find, the red line is what you want to focus on, was the, even though Conway alone which is just a percentage of the inventory was close to the bottom of the 5-year band, it was in the normal band from what we look at for historical demand.

If you look at the Mont Belvieu chart, it was at a 5-year high. What we're missing is the fact and to your question about the—why we were so late to react. If you'll look at about the first of Oc-

tober you'll see a dramatic draw down of inventory that is, in looking at the other charts, all the lines for the other years on the chart, you see that's unprecedented.

So there's some factors in there that caused demand that would be hard to predict. There's the one other explanation was that particularly with the Mont Belvieu, the PADD–3 draw down, that some of that product was exported.

Now when we got the situation to the emergency order to ship product up the pipeline from Belvieu, coincidentally there were a couple of export cargoes that were canceled. But they weren't canceled as a response to this. It was an economic decision. The run up in price in the United States overcame the price in the rest of the world. So it was an economic decision on those operators to cancel those cargoes and keep that product in the United States.

But it's this extremely rapid draw down that would have been impossible to have forecasted, I believe.

Senator FRANKEN. I understand that was impossible to forecast, but that started in October. We didn't really, I didn't really feel the reaction to the emergency until February, early February.

That's a long time. It would seem that the draw down is that—are you saying that there was this draw down, but we didn't see it at the time? That no one understood that it was happening? Yes?

Ms. KENDERDINE. I have a similar chart, a graph, that shows a significant draw down starting in October, just a very, very steep, steep decline in inventories, in Conway where there was, I think, 12 million barrels and it went down to four. So we saw similar things in the market.

FERC collects its—not FERC, EIA collects its information on a monthly basis. So you have a lag time in early December EIA warned about spikes in propane prices, a big draw down in inventories and lower supplies. So FERC was—and starting at about that time, DOE and our emergency response office and ICER are—I don't know what, I can't remember what the acronym stands for. Both of those are emergency response functions, started having phone calls with States in order to start gathering information.

We initiated by January 27, we were having regular phone calls led by the White House. On February 7 FERC utilized its prioritization authorities. So we were pretty engaged as soon as we gathered and analyzed the information we saw from that big drop off in October.

That was the collusion of cold weather and the drying all happening at once.

Senator BALDWIN. I want to ask a couple of questions about the emergency authority that FERC used.

But before I do, Mr. Black, I'm wondering absent this use of emergency authority to prioritize what's shipped on a pipeline, how would a pipeline prioritize between shippers during a period of congestion, of high use? You talked about summer where you'd love to have the pipelines have more paying customers when they're not being used to full capacity. But when it's being used to full capacity how does that prioritization process work?

Mr. BLACK. Good question.

Liquid pipelines are common carriers. Unlike contract carriers they are open to all comers and nobody has to ship on a pipeline. They can move on, ship on another mode, if they want to.

If more nominations are requested for capacity on a pipeline then the pipeline has capacity. The pipeline moves to a process called pro-rationing where each shipper that asked to move on a pipeline gets an allocation. That allocation methodology is on file at FERC. Every pipeline operator files a tariff with the allocation methodology.

What's going to happen if more people want to use the pipeline than can?

A shipper has an opportunity to protest that allocation method or, in fact, to file a complaint about it. So when you hit your prorationing that methodology kicks in.

Senator BALDWIN. So that methodology is, sort of, customer/shipper neutral. It's hypothetically filed with the FERC prior to this situation becoming a reality.

Mr. BLACK. Yes.

Senator BALDWIN. OK.

Mr. BLACK. I'm sorry, go ahead.

Senator BALDWIN. I was going to then pivot to Mr. Nichols.

Just, I would love it if you could walk me through exactly, well, not exactly, because we don't have all the time in the world, but how that emergency authority or the process for invoking that emergency authority. How that works? How that currently functions?

I know this is rarely, rarely used. So how did it work?

Mr. NICHOLS. In fact, not only rarely used, this is the——

Senator BALDWIN. First.

Mr. NICHOLS. First time it was ever used.

Essentially we started getting calls from other agencies, in some cases from pipelines and particularly letters, I believe, from both you and Senator Franken, pointing out that there was a real problem that was developing with regard to propane shortages in portions of the country.

We immediately began scouring our regulations and statutes to see what kind of authority we might invoke. Our very talented people in the Office of General Counsel came up with this provision that dates back to the days of Woodrow Wilson. We looked at it.

I, personally, honestly, had some misgivings about using it without a record to know what the unintended consequences might be. I explained earlier that is why we engaged——

Senator BALDWIN. Right.

Mr. NICHOLS [continuing]. In another process to fix that problem as quickly as possible.

The statute itself says that whenever the Commission is of the opinion that shortages—and it really speaks in terms of railroads—but when shortages exist or other emergency requiring immediate action so it's not something you could presumably invoke 3 months in advance on anticipation.

But it seemed to us that there was an immediate emergency. So we decided that we would invoke this authority.

Senator BALDWIN. So, two follow ups.

First of all, Ms. Kenderdine, can you talk about, as you evaluated the data, the information you were getting, what difference that use of emergency authority made to easing the situation?

Was this an important tool? Did it make a difference?

Ms. KENDERDINE. It was an important tool. I would say that the Department of Energy also has similar authorities.

I mentioned in the Defense Production Act we did the same thing. You know, we start scouring our authorities to see what authorities we had. We came across a similar prioritization authority. Like FERC, we had never used that authority before.

It was in the Defense Production Act. It really is designed for, kind of, national defense emergencies. But we figured we could have used it. FERC was, I think, a day ahead of us. We were working with them.

As I said, we offered to intervene in support of what they were doing. There are issues when you do something like that we need to be aware of. There were concerns.

We checked to try and find out what was moving in those pipelines. Butane was moving in the pipelines. Butane is used to start cars in cold weather.

So you have to be mindful of what you are displacing. In an instance like this, I think that keeping people alive and warm in a freezing cold winter certainly has priority over starting your cars. But those are the kinds of things that you have to consider when you are doing that.

We, anecdotally, we haven't gone through and analyzed the precise impacts of the use of that authority. But it seemed to have a positive effect on what happened. I think that, I think, Mr. Cordill said that it was helpful. You did start seeing some easing of shortages as you got into February, later in February and then by March we seemed to be out of the woods.

Then we're dealing with Ukraine. So, um, yes.

Senator BALDWIN. So, for both of you, you've been pressed before. I'm going to try to press a little bit more on this that, you know, sort of, what other authorities or tools do you need?

Mr. Nichols, you said because you were using, FERC was using, an emergency authority that was intended for the rail industry, little worried about what the implications would be, that some clarity that Congress intends you to use it for purposes like you did, would be helpful. I'm happy to. I know we'll engage in a lot of conversation about this hearing following the hearing.

But I wonder, for both of you, if this perfect constellation, this perfect storm of things happens again next year, would you say, I can't believe in this hearing we didn't ask Congress for this tool or this authority. Here we are again.

So, if you can answer now, great. But feel free also to follow up. We want to make sure we're very thorough about this and take the steps necessary to make sure this doesn't happen again.

Mr. NICHOLS. We would be happy to follow up.

Senator FRANKEN. Great, thank you.

I just want to do a couple things and then I think we can break for tea and then come back.

[Laughter.]

Senator FRANKEN. No, I'm just—that's—I'm joking.

[Laughter.]

Everyone said, oh, do they normally do that?

We brought up the heating oil reserve. Ms. Kenderdine, you were there when during the Clinton Administration when you did that.

We actually, you know when we used that, was during Hurricane Sandy. So and you said that was at a different time when there seemed to be energy shortages. We had this heating oil reserve because we were in an era of shortages.

But now we, in no small part because of research done by the Department of Energy, we have this gas revolution.

So let's talk about a propane reserve. What would that look like? What would that be? Would that mean that Conway is just always kept full and Belvieu is always just kept full like it's just always full?

I mean, what would that look like? What would the equivalent of a heating oil reserve which came in handy during this last hurricane or Hurricane Sandy? What would that look like?

Anybody?

Ms. KENDERDINE. The heating oil reserve in the Northeast was used but there were distribution problems. So I think that that we need to focus more on distribution plans. If you did a propane reserve I think you really need, you know, the market is opaque, as we've discussed here. It is widely distributed, a lot of very small players in that supply chain.

So, you need to make sure that you can distribute product, if you have it.

We did have problems with that in Sandy for some of the reasons that I mentioned, the interdependencies of electricity and fuel became an issue.

I think you have to be very careful and analyze. That's why we're doing these regional fuel resiliency studies. It's a very, very different environment.

Senator FRANKEN. As part of the QER?

Ms. KENDERDINE. Yes, that's part of the QER.

Senator FRANKEN. Yes.

Ms. KENDERDINE. So we need to look at it and see. I don't personally know at this point in time where the best locations might be or whether that's the best thing to do or whether providing incentives to hold storage by the private sector is another option. You know, one of my deputies, his title is Deputy Director for Incentives and Finance and Budget. So we are looking in the QER, looking at where incentives might be appropriate.

It requires some fairly rigorous analysis. That's what we're going to be doing in these regional fuel resiliency studies.

Senator FRANKEN. So while as you do that, please keep a big eye on propane or this issue of whether or not to have a reserve and how we can make information more available to people. Because I will say that, you said that December 1st was when EIA made their new assessment about the price of propane was going to go up.

There's a long time between December 1st and January 27th. That's a long period. I don't know what happened during that almost 2 months.

That was really about my question a little bit, a while ago, about why this took so long for us to react to.

Mr. ZIMMERMAN. If I may?

We started kicking and screaming, you know, middle of December.

Senator FRANKEN. OK.

Mr. ZIMMERMAN. That was our question also, you know, that FERC kind of said they didn't know they had the authority to do anything yet.

I would that in the future, as I said before, that we could streamline this response, if there is a future emergency.

Senator FRANKEN. I have the feeling that one of the safest places to be this year was at the Boston Marathon. I have a feeling that next—I'm not worried so much about next winter, but 7 years from now, 12 years from now. You know, I don't want this to happen again ever.

So in the Quadrennial Review I think that makes a lot of sense.

Mr. CORDILL. Senator, Ms. Kenderdine made some very good points about how fractured this industry is. The question about where to put a strategic propane reserve. It is something that surely should be explored. We should explore every opportunity, from every facet that would give us some relief on this.

But let me draw a little difference between the heating oil and the propane industry. The heating oil industry is focused very much in the Northeast part of the country. The propane is a national market. We're from coast to coast.

So you have two issues.

One is inventory.

The other is deliverability.

If we'd had a Mont Belvieu that had a lot more additional product in there still would have been distribution delays getting it to the Midwest. So, location is a factor.

We mentioned the Cochin pipeline and its reversal affecting the deliverability into the Midwest. There's an additional factor there is that it is connected to a storage facility in Saskatchewan that is roughly the same size as Conway. So we're losing the deliverability, but we're also losing the quick access to that product that's in inventory there.

Now, can it come by rail? Eventually.

But it's just a slower, less dependable, you know, approach to that.

Senator BALDWIN. I'm done.

Senator FRANKEN. Thank you all. You've been all extremely helpful. I appreciate all your time.

This hearing will stand adjourned.

[Whereupon, at 4:36 p.m. the hearing was adjourned.]

APPENDIX

RESPONSES TO ADDITIONAL QUESTIONS

RESPONSES OF MELANIE KENDERDINE TO QUESTIONS FROM SENATOR LANDRIEU

Question 1. Propane retailers are usually small businesses that have difficulty financing the purchase of their propane supplies when price spikes occur. They also have a limited ability to extend credit to their customers when such credit is needed to avoid cutting off supplies at critical times.

What policies is the Department considering to address this issue of retailers' limited credit?

Answer. While the Department has no specific authorities to assist these businesses with credit extensions, we have worked with other agencies to do all that is possible in this regard. The Department is also considering techniques to increase data transparency and market visibility, which may lead to the development of private sector solutions to the credit and financing challenges of small business propane suppliers.

Question 2. What are the Department's views on a regional propane reserve, similar to the heating oil reserve that exists in the Northeast?

Answer. The Department operates regional fuel reserves in the Northeast for heating oil and will be operating one for gasoline this year to provide short-term relief in the event of significant supply disruptions. As part of the Quadrennial Energy Review, the Department is undertaking regional fuel resiliency studies.

Question 3. Do you believe the Secretary should have limited emergency authority to reallocate a portion of Weatherization funds in response to extreme weather events?

Answer. Given the long-term efficiency and savings benefits to households from the Weatherization program, the 150 percent return on every Federal dollar invested in the program,[1] [2] and the national environmental, economic and security advantages, DOE does not recommend granting limited emergency authority to reallocate Weatherization funds in response to extreme weather events.

RESPONSES OF MELANIE KENDERDINE TO QUESTIONS FROM SENATOR FRANKEN

Question 1. What steps can we take to improve the forecasting that the Energy Information Administration (EIA) does, to give more timely warning of propane shortages in the future?

Answer. The Energy Information Administration publishes a forecast of average winter residential propane prices for the. Northeast and Midwest regions in the monthly Short-Term Energy Outlook (STEO) during the winter heating season (October through March). ETA also provides propane market information through articles in Today in Energy (TIE) and This Week in Petroleum.

ETA's first 2013/2014 winter forecast was published in the October 2013 STEO. At the time, U.S. propane stocks were 0.2 million barrels higher than the previous 5-year average for that time of year, and NOAA's weather forecast was for winter heating degree days to be close to the previous 10-year average. Nevertheless, ETA forecast at that time that residential propane prices over the winter would average about 9% higher than the previous winter. Weather events, however, turned towards the extreme beginning with a wet corn crop followed by some of the coldest weather on record for many parts of the country. EIA flagged low propane inven-

[1] Schweitzer, M. 2005. Estimating the National Effects of the U.S. Department of Energy's Weatherization Assistance Program with State-Level Data: A Metaevaluation Using Studies from 1993-2005. ORNL/CON-492. Oak Ridge National Laboratory, Oak Ridge, Tenn.

[2] Eisenberg, J. 2010. Weatherization Assistance Program Technical Memorandum: Background Data and Statistics. ORNL/TM-2010-66. Oak Ridge National Laboratory, Oak Ridge, Tenn., p. v.

tories in the Midwest in a December 12 TIE article. From November through March winter weather was at least 10% colder than forecast (over 25% colder in both February and March in the Midwest), stocks were drawn down, and market prices and the price forecast went steadily higher.

EIA has taken some immediate steps to improve its propane modeling and forecasting. The STEO model has been expanded to include U.S. propane production, consumption, and net trade flows in addition to the current regional propane stocks. The improved modeling is now being introduced into STEO web products and analysis. EIA is also providing additional information through new GIS maps for propane infrastructure including natural gas plants, pipelines, fractionators, storage facilities, and ports used for waterborne imports and exports.

In the STEO Winter Fuels Outlook, the implications of 10% colder scenarios for prices and fuel expenditures have been routinely provided for heating oil, natural gas, and electricity. EIA is exploring methods that could be used to provide this type of analysis for propane prices and expenditures in the STEC, ahead of next winter.

Question 2. What authority does the Department of Energy (DOE) have, and what additional authority would DOE need, to ensure that the federal government can effectively respond to the type of crisis that we experienced? What can we do to ensure a quick response?

Answer. DOE's authorities to respond to such a crisis are limited. The President has authority through the Defense Production Act (DPA) to prioritize contracts deemed "necessary or appropriate to promote the national defense" and contracts necessary to maximize domestic energy supplies. These authorities have been delegated to multiple agencies by the President, including the DOE and the Department of Commerce. DPA authorities overlap with both the Federal Energy Regulatory Commission's authority to prioritize certain pipeline shipments under the Interstate Commerce Act, and with the Surface Transportation Board's authority to prioritize rail shipments under the ICC Termination Act of 1995. DOE does maintain significant responsibility for interagency coordination during such events as the Sector Specific Agency under Presidential Policy Directive (PPD)-21[3], the Emergency Support Function-12 in support of the National Response Framework[4], and through the information and expertise it provides to the National Preparedness function as outlined in PPD-8.[5] These activities focus on the range of efforts from preparedness to long-term recovery.

Engagement with industry can address policies, practices and procedures to enhance system reliability, security and resilience; however, anti-trust laws constrain the scope of discussions surrounding market issues. During this particular propane event, DOE did what it could to intensely engage with industry through daily teleconferences with associations and one-on-one calls with specific companies.

During such events, DOE collects and disseminates data as part of a multi-agency response to help infoiin and prioritize Federal and State response actions, such as hours of service waivers for truck transport by the Department of Transportation, prioritization of propane pipeline shipments by the Federal Energy Regulatory Commission, and the acceleration of availability of Low-Income Home Energy Assistance Program funds by the Department of Health and Human Services.

In response to this event, DOE coordinated multiple offices within the department to collect and analyze data from and collaborate closely with industry, States and other Federal agencies across the Office of Electricity Delivery and Energy Reliability, Fossil Energy, Energy Policy and Systems Analysis and the Energy

Information Administration. In particular, the DOE's Emergency Response Organization (ER0)—comprising industry leaders and interagency and DOE officials—held daily calls with States, industry associations and Federal partners. This served to inform senior leadership about the situation, identified federal assistance where appropriate, shared key product availability figures to support the States' efforts and informed Federal efforts to address the situation.

DOE's focus on data and communication provided critical feedback loops for actions taken, their effectiveness and critical information to states, localities, distributors and other industry actors. The DOE is already taking steps to ensure a more rapid response in the future. First, EIA will continue and expand support to States

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[3] http://www.whitehouse.gov/the-press-office/2013/02/12/presidential-policy-directive-critical- infrastructure-security-and-resil

[4] Emergency Support Function (ESF) #12—Energy is intended to facilitate the restoration of damaged energy systems and components when activated by the Secretary of Homeland Security for incidents requiring a coordinated Federal response. Under Department of Energy (DOE) leadership, ESF #12 is an integral part of the larger DOE responsibility of maintaining continuous and reliable energy supplies for the United States through preventive measures and restoration and recovery actions. (http://www.fema.gov/odf/emergency/nrf/nrf-esf-12.pdf)

[5] http://www.dhs.gov/presidential-policy-directive-8-national-preparedness

in the State Heating Oil and Propane Program (SHOPP); DOE will provide assistance to associations including the National Association of State Energy Officials and the National Gas Propane Association, in identifying steps that will help to prevent shortages in the future; hold regional exercises with States on their Energy Assurance Plans; and examine emergency preparedness to enhance industry and government capabilities (as requested of the National Petroleum Council by Secretary Moniz following this crisis). Finally, as Secretariat to the Quadrennial Energy Review, called for by the President in January 2014, DOE will address energy infrastructure in an interagency effort focused in the first year on transmission, storage and distribution. Regional fuel resiliency studies are part of this effort. Policy recommendations for executive and legislative action as appropriate, priorities for research and development programs and necessary analytical tools and data are the final goal of the QER. These recommendations will help ensure the nation's infrastructure can enhance U.S. economic competitiveness, environment and energy security,

Question 3. What steps can we take to set up an early warning system for possible future propane shortages?

Answer. A key element of any early warning system is timely, relevant, and actionable data and information across multiple regions and segments of the propane market. Out of this past winter's experience both the Department and private sector actors are studying and considering ways to provide better insight and warning for possible future propane shortages. The Department is looking at data on storage inventories as a critical leading indicator as particularly applicable to this case. We will also be examining this issue during QER stakeholder outreach over the next few months. The Department will also take follow up steps to encourage local governments, commercial parties, and non-governmental organizations to stay on top of market developments.

Question 4. One possible way to address future shortages would be to create a federal reserve of propane, similar to the Northeast Home Heating Oil Reserve, but predominantly serving the Midwest. What benefits would such a reserve provide for wholesalers, distributors, and consumers? What potential pitfalls must be avoided for the reserve to be most effective? If a federal reserve of propane were implemented, what options exist regarding where the reserves should be located? What role would primary, secondary, and tertiary storage play in implementing a reserve?

Answer. The Department operates a regional fuel reserve in the Northeast for heating oil and is in the process of implementing one, also in the Northeast, for gasoline to provide short-term relief in the event of significant supply disruptions. The costs and benefits of such reserves as well as questions of geographic location and the role of primary, secondary, and tertiary storage need to be carefully considered. As part of the Quadrennial Energy Review, the Department is undertaking regional fuel resiliency studies.

Question 5. Without giving out information that could give one business an unfair advantage over another, what options do we have for providing greater transparency, especially during an emergency, into when and where propane is being shipped?

Answer. The Department of Energy is evaluating alternatives for increasing data gathering and market transparency while maintaining business proprietary information. The core concern for the Department is the need to avoid situations where market participants can infer competitor's information and manipulate markets given their own proprietary information in conjunction with Department issued aggregate data. The issue is complicated by the small size of the propane market and the limited number of market participants in various segments of the market. Accordingly, the Department is conducting an evaluation of the federal options for providing greater transparency into when and where propane is being shipped or stored, especially during an emergency.

Question 6. The Department of Commerce has interpreted the term "consumer grade propane" in section 9 of the Propane Education and Research Act (PERA) to mean "residential consumer grade propane." ETA data could potentially be used to distinguish residential from commercial propane, but currently it is not. The Department of Commerce's interpretation, together with other features of the PERA law, mean that when the price of residential propane is high relative to other fuels, the Propane Education and Research Council is not allowed to use the funds collected from industry to conduct general consumer education and outreach. Such educational efforts, if properly funded and focused, could serve to inform propane consumers of strategies for reducing their exposure to price spikes and supply shortages. Does the DOE (or ETA) collect data on consumer grade propane on an annual national average basis? If so, would these data be adequate for the Department of

Commerce to use in compliance with analytical requirements of section 9 of PERA, potentially allowing more funding to be available for education and outreach efforts?

Answer. In response to your further question, the choice of a propane price data series to be used in comparing "indexed changes in the price of consumer grade propane" to "a composite of indexed changes in the price of residential electricity, residential natural gas, and refiner price to end users of No. 2 fuel oil on an annual national average basis" is at its core a matter of statutory interpretation for the Department of Commerce (DOC) to consider in consultation with the Congress.

In 2011, the Energy Information Administration (EIA) suspended collection of several surveys for budgetary reasons, including one that provided a data series that the Department had used for this purpose. Since that time, EIA has identified other EIA data that might be used for this calculation, but DOC to date has taken the position that it has been unable to identify a publicly available data set that in its judgment would meet the criteria set out in section 9 of PERA.

With regard to the specific propane price series identified in your question, one matter that DOC might be weighing involves the point in the supply chain at which the price is surveyed. While the statutory language specifically refers to a composite comparison index that includes the "refiner price to end users of no. 2 oil" as well as residential electricity and residential natural gas, the "price of consumer grade propane" does not specify the point in the supply chain at which that price is surveyed. The implications of this language are not very clear.

RESPONSES OF MELANIE KENDERDINE TO QUESTIONS FROM SENATOR MANCHIN

Question 1. Ms. Kenderdine, in your testimony, you point out that the propane market is highly fragmented, with 30 percent of the market held by three firms and the other 70 percent held by 3,500 firms. In my state, where more than 30,000 households use propane for heating their homes, we have a number of small distributors. What do you think can be done at the federal level to improve communication and coordination in this fragmented market both to prevent shortages like this in the future and to improve response if, God forbid, this happens again?

Answer. DOE does maintain significant responsibility for interagency coordination during such events as the Sector Specific Agency under Presidential Policy Directive (PPD)-21[6], the Emergency Support Function-12 in support of the National Response Framework[7], and through the information and expertise it provides to the National Preparedness function as outlined in PPD-8.[8] These activities focus on the range of efforts from preparedness to long-tem-1 recovery.

Engagement with industry can address policies, practices and procedures to enhance system reliability, security and resilience; however, anti-trust laws constrain the scope of discussions surrounding market issues. During this particular propane event, DOE engaged with industry through dailyteleconferences with associations and numerous one-on-one calls with specific companies.

Question 2. One of the problems this winter was insufficient information on a timely basis of propane inventories and prices. Is the DOE willing to work with consumers and the propane industry to develop more detailed and timely propane inventory and pricing information?

Answer. The Energy Information Administration (ETA) is engaging with the Natural Propane Gas Association (NPGA) to discuss ways to enhance ETA's propane data collection efforts. On May 8, ETA met with NPGA to review their specific recommendations for actions to provide more detailed propane inventory and pricing information. NPGA followed up with a May 16 letter that outlined their priority data requests and also identified data that would not be particularly useful to collect, such as inventory data at the secondary level.

Considering both the NPGA letter and ongoing discussions with state energy officials, ETA is now considering what can be done to develop more detailed and timely propane inventory and pricing information.

In response to sharp increases in residential propane prices earlier this year, EIA has already proposed to expand the State Heating Oil and Propane Program (SHOPP) for the first time since 1994. On April 2, 2014, EIA sent an invitation to

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[6] http://www.whitehouse.govithe-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil

[7] Emergency Support Function (ESF) #12—Energy is intended to facilitate the restoration of damaged energy systems and components when activated by the Secretary of Homeland Security for incidents requiring a coordinated Federal response. Under Department of Energy (DOE) leadership, ESF #12 is an integral part of the larger DOE responsibility of maintaining continuous and reliable energy supplies for the United States through preventive measures and restoration and recovery actions. (http://www.fema,gov/pdf/emergency/nrf/nrf-esf-12.pdf)

[8] http://www.dhs.govioresidential-policy-directive-8-national-preparedness

26 non-participating states to solicit interest in joining SHOPP. An informational webinar was held on April 14, 2014 to provide an overview of SHOPP as well as the benefits and expectations for those states that choose to participate. To date, 12 states have agreed to participate in addition to the 24 states already participating in SHOPP. A 60-day Federal Register Notice is available for comment until July 7, 2014. ETA hopes to begin data collection for the next heating season beginning on October 6, 2014 with 36 states. Other actions are also likely ahead of next winter following up on recent discussions with NPGA.

Beyond immediate steps to bolster propane information ahead of next winter, ETA is also about to undergo a thorough review of all of the petroleum supply surveys. ETA will be soliciting feedback on recommended survey changes from various stakeholders during 2014 and will then solicit public comment through Federal Register Notices in 2015. These changes could include those related to the collection of propane inventories.

Question 3. Is the DOE willing to undertake a study of the impact of propane exports on the supply and price of propane to consumers?

Answer. DOE is considering whether to assess the impact of propane exports on the supply and price of propane to consumers during the next phase of the Quadrennial Energy Review that will be initiated in 2015; analysis topics for the QER are established by the White House Task Force for the Quadrennial Energy Review.

RESPONSES OF MELANIE KENDERDINE TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. Did access to international markets help or hurt efforts to alleviate the propane shortage in the Midwest? How?

Answer. There are several factors that contributed to the limited supplies of propane in the Midwest this past winter, including existing low propane inventories at the start of the 2013-2014 heating season, a large, wet corn harvest during the fall 2013 that drew down inventories further, and the frigid weather in many parts of the northern tier of the U.S. in late 2013 and early 2014. As a consequence of the domestic propane markets and higher retail prices for propane in the Gulf region at the beginning of the winter, there were more propane stocks in the Gulf region than in the Midwest region at the time the unusually high demand in the Midwest region commenced. This resulted in higher prices and tighter supplies in the Midwest region. Also, owing to the continuing cold weather and heavy snow conditions in the Midwest during the winter, the transport of propane supplies were hampered, resulting in the further tightening of available supplies at the retail and local levels. It is uncertain whether and to what extent access to international markets may have increased or decreased regional propane supplies in the Midwest during this past winter. There are many factors involved that affect both the supply and infrastructure differentially across regions within the U.S.

Question 2. How did propane exports react to high prices in the Midwest?

Answer. Propane prices in the Midwest (Conway, Kansas) began moving higher in late 2013 and peaked in the second half of January. In late January, U.S. propane prices moved above international propane prices. According to U.S. Census Bureau data, U.S. exports of propane were 410,000 barrels per day (bbl/d) in November, 402,000 bbl/d in December, 356,000 bbl/d in January and 342,000 bbl/d in February. February is the most recent month for which U.S. Census Bureau export data are available.

According to data and info/Illation available from commercial sources, including consultants and trade press, some propane exports planned for December, January, and February were either cancelled or delayed. The reported volumes cancelled or delayed were 1.0 million barrels in December, 1.2 million barrels in January, and 100,000 barrels in February.

Question 3. Does access to international markets impact domestic propane production?

Answer. DOE is considering whether to assess the influence of access to international markets on domestic propane production during a future phase of the Quadrennial Energy Review; analysis topics for the QER are established by the White House Task Force for the Quadrennial Energy Review.

Question 4. Will DOE be conducting an assessment or study of this year's test sale from the Strategic Petroleum Reserve? When will it be completed, if so?

Answer. Yes. DOE will conduct an assessment of the test sale and will provide a written report to Congress. The report to Congress should be completed in the near future.

Question 5. Has the U.S. ever exported crude oil from the SPR as part of the lEA's emergency sharing agreement? If so, when and in what volumes?

Answer. The U.S. has not exported crude oil from the SPR as part of the. TEA's emergency sharing agreement.

Question 6. Under what circumstances, if any, may product be exported from the Northeast Home Heating Oil Reserve or the new regional gasoline reserve announced on May 2nd?

Answer. The Energy Policy and Conservation Act does not explicitly address exporting product from the Northeast Home Heating Oil Reserve. The new regional reserve, which will be a part of the SPR, will follow applicable statutory requirements governing export of petroleum products.

The Northeast Regional Refined Petroleum Product Reserve (NERRPPR) falls under the Strategic Petroleum Reserve legislation and therefore follows the requirements of Section 161(1) of EPCA concerning exports:

Notwithstanding any other law, the President may permit any petroleum products withdrawn from the Strategic Petroleum Reserve in accordance with this section to be sold and delivered for refining or exchange outside of the United States, in connection with an arrangement for the delivery of-refined petroleum products to the United States.

RESPONSES OF MELANIE KENDERDINE TO QUESTIONS FROM SENATOR BARRASSO

Question 1. You testified that: "There was...an unusually late and larger than noiuial use of propane for drying a large and wet corn crop, one of the major uses of propane in the Midwest." You also stated that: "This larger than expected demand strained propane supplies going into the winter and reduced inventories at distribution terminals in the upper Midwest." I understand that over 300 million gallons of propane was used to dry corn in 2013. That is 235 million gallons more than what was used in 2012. It is also my understanding that about 36 percent of last year's corn crop was used to produce ethanol to satisfy requirements under the Renewable Fuel Standard.

A. Has DOE analyzed the extent to which the Renewable Fuel Standard contributed to low propane inventories in the Midwest this past fall and winter?

B. If not, will you commit to conducting such an analysis and sharing your results with the public?

Answer. DOE did not analyze the extent to which the RFS contributed to propane Inventories in the Midwest this past fall and winter; the Department's focus this past fall and winter was on monitoring the situation, especially the supply of propane in the Midwest. DOE may consider such analysis, in the future.

Question 2. Mr. France, the Chairman of the National Propane Gas Association, testified that: "obtaining a waiver from the Jones Act is generally acknowledged to be nearly impossible." For that reason, Mr. France recommended that: "in the context of fuel emergencies DOE should be given the authority to grant such waivers from the Jones Act." With respect to last winter, Mr. France explained that: "DOE had the greatest knowledge of the state of the industry supply and would have been best positioned to grant a waiver from the Jones Act for a de minirnis period of time."

Would DOE support legislation authorizing it to grant waivers under the Jones Act for fuel emergencies? If not, why not?

Answer. The Department plays a consulting role in the disposition of Jones Act waivers when requested by the Department of Homeland Security.

RESPONSE OF ANDREW J. BLACK TO QUESTION FROM SENATOR FRANKEN

Question 1. Without giving out information that could give one business an unfair advantage over another, what options do we have for providing greater transparency, especially during an emergency, into when and where propane is being shipped?

Answer. Under Section 15(13) of the Interstate Commerce Act, it is unlawful for a pipeline to disclose information on when and where a shipper is transporting products without the shipper's consent or pursuant to other limited exceptions in Section 15(13). The Section 15(13) prohibition on disclosing such information protects the competitive interests of pipeline shippers. Depending on the number of shippers, volume and destinations, the disclosure of information that may appear aggregated in nature may in fact be specific and may inadvertently compromise the confidentiality of shipper information.

However, the normal pipeline nomination and allocation processes do provide clear information to a pipeline's shippers of the most important information they would need from a pipeline, namely, whether capacity is available to ship product.

The pipeline's shippers typically nominate the quantity of barrels they seek to ship from origin points to destination points during the month in advance of the month when shipments are made. Prior to a shipment month, and during a month as circumstances change, pipelines will evaluate tenders of product for shipment against the physical capacity of the pipeline.

When tenders of product do not exceed the physical capacity of the pipeline, the pipeline will typically provide notice to all shippers that pipeline capacity remains available for additional shipments and will work with shippers to accommodate additional shipments during the month. When the tenders for shipment exceed the physical capacity of the pipeline, capacity must be apportioned on a prescribed basis among the pipeline's shippers. The pipeline will provide notice of the apportionment to all shippers, either prior to the month or during a month as circumstances warrant.

Thus, prior to and during any month, a pipeline's shippers are informed and aware that the pipeline either (i) has capacity, or (ii) does not have capacity and that available capacity is being apportioned among the shippers. These communications between the pipeline and the shippers occur prior to a month of flow, or during the month as circumstances warrant, as soon as reasonably practicable after the pipeline is in apportionment or removed from apportionment. The pipeline has every incentive to timely communicate with shippers; as explained in my testimony, pipelines earn revenue by charging a rate for the transportation services they provide to shippers, and thus, have every incentive to make deliveries, including shipments of propane, when they are requested by shipping customers. Therefore, pipelines also have every incentive to be as transparent as possible, within the confines of the Interstate Commerce Act, to ensure that shippers are aware that capacity is available to ship products on their systems. As also explained in my testimony, pipeline capacity is generally sufficient, especially during off-peak times, to ensure that propane supplies are adequate to meet domestic seasonal needs.

RESPONSES OF ANDREW J. BLACK TO QUESTIONS FROM SENATOR MANCHIN

Question 1. Mr. Black, is data on utilization of the propane pipelines publicly available on a real-time or near-to-real-time basis?

Answer. Data on utilization of propane pipelines is not publicly posted nor communicated publicly on a real-time, near-to-real-time, or other basis, but, as explained below, it is timely communicated to a pipeline's shippers through the normal pipeline nomination and allocation process. Due to the operational characteristics of oil and NGL pipelines and the products they ship (notably, as compared to natural gas pipelines), neither propane nor other energy liquids can be transported by pipelines on a real-time or near-to-real-time basis, and, in order to optimize the volume of shipments on behalf of their shippers, pipelines begin scheduling transportation services well in advance of the actual shipment date. During the normal pipeline nomination and allocation processes, pipelines provide clear information to shippers of the most important information they would need from a pipeline, namely, whether capacity is available to ship product.

The pipeline's shippers typically nominate the quantity of barrels they seek to ship from origin points (where products are injected into the system for shipment) to destination points (where products are delivered for the shipper) during the month in advance of the month when shipments are made. Prior to a month, and during a month as circumstances change, pipelines will evaluate tenders of product for shipment against the physical capacity of the pipeline. When tenders of product do not exceed the physical capacity of the pipeline, the pipeline will typically provide notice to all shippers that pipeline capacity remains available for additional shipments and will work with shippers to accommodate additional shipments during the month. When the tenders for shipment exceed the physical capacity of the pipeline, capacity must be apportioned on a prescribed basis among the pipeline's shippers. The pipeline will provide notice of the apportionment to all shippers, either prior to the month or during a month as circumstances warrant.

Once shipments are finalized and scheduled, products are injected into the system, and then shipped in cycles, commonly of five or ten days, meaning that a product will reach its destination point during the timeframe identified for deliveries associated with that cycle period. Once the shipment of products commences, the time required to transport product from an origin point to a destination point is typically a number of days or weeks.

As explained in my testimony, pipelines earn revenue by charging a rate for the transportation services they provide to shippers, and thus, have every incentive to make deliveries, including deliveries of propane, when they are requested by shipping customers. Therefore, pipelines also have every incentive to be as transparent

as possible, within the confines of the Interstate Commerce Act, to ensure that shippers are aware that capacity is available to ship products on their systems. As also explained in my testimony, pipeline capacity is generally sufficient, especially during off-peak times, to ensure that propane supplies are adequate to meet domestic seasonal needs.

Question 2. On pages 6 and 7 of your testimony you show information on the utilization of the Mid-America Pipeline. Has this data previously been available to the public? If so, where? Is it regularly available?

Answer. The information on pages 6 and 7 of my testimony on the utilization of the Mid-America Pipeline is proprietary information that was not previously available to the public and is not regularly available. The information was provided by the pipeline voluntarily to help facilitate the Committee's review. Under Section 15(13) of the Interstate Commerce Act, it is unlawful for a pipeline to disclose information on when and where a shipper is transporting products without the shipper's consent or pursuant to other limited exceptions in Section 15(13). The Section 15(13) prohibition on disclosing such information protects the competitive interests of pipeline shippers. Depending on the number of shippers, volume and destinations, the disclosure of information that may appear aggregated in nature may in fact be specific and may inadvertently compromise the confidentiality of shipper information.

As discussed in response to Question 1, I note that pipeline shippers are provided notice of available capacity during the process of nominating and scheduling transportation services. Further, if pipeline capacity is over-nominated and, therefore, capacity must be apportioned among the pipeline's shippers, then notice of the apportionment is provided to all shippers on the same basis. Thus, any shipper knows whether capacity is available for a requested shipment.

RESPONSES OF JOE CORDILL TO QUESTIONS FROM SENATOR FRANKEN

Question 1. One possible way to address future shortages would be to create a federal reserve of propane, similar to the Northeast Home Heating Oil Reserve, but predominantly serving the Midwest. What benefits would such a reserve provide for wholesalers, distributors, and consumers? What potential pitfalls must be avoided for the reserve to be most effective? If a federal reserve of propane were implemented, what options exist regarding where the reserves should be located? What role would primary, secondary, and tertiary storage play in implementing a reserve?

Answer. The National Propane Gas Association has formed a task force to consider a variety of options to ensure that our experience from the 2014 winter is not repeated. A strategic reserve is one option that we are evaluating. However, it is important to note that propane is different from the heating oil industry in that we are broadly spread throughout the country. There is not strong regional concentration in a single part of the country like fuel oil. There are some other options that NPGA is prepared to recommend that could make a difference right now, such as approval of the Finger Lakes storage facility in New York, better transparency of pipeline operations and data availability, assistance with rehabilitating the Todhunter storage facility in Ohio, and removing the Department of Commerce restriction on the Propane Education and Research Council to facilitate year-round demand, which will help create incentives for additional infrastructure.

Question 2. How can we incentivize propane users to (1) utilize larger tanks; and (2) fill storage tanks before the winter months?

Answer. When the industry formed the Supply and Infrastructure Task Force, one working group focused on steps that can be taken to educate propane customers on winter readiness. Customer storage, also called tertiary storage, is a critical part of the supply equation. According to a 2011 PERC study, an estimated 111 million barrels of customer storage exists in the field, nearly equaling the total amount of primary storage capacity in the U.S. The study also found the average tank size for customers was 400 gallons. Many customers want to utilize larger tanks, but cannot due to the increased cost of replacing their current tank. One way the Federal Government could incentivize propane users to utilize larger tanks is to provide financial incentives towards the purchase of these tanks, either through rebates to customers or to marketers. The Federal Government could also provide tax incentives to customers who chose to increase their tank size.

In some instances, customer storage is discouraged through regulatory codes such as those posed in the International Fire Code Chapter 61. These regulations seek to restrict the amount of fuel stored on-site and place additional stress on the propane infrastructure. In essence, these regulations are promoting "just in time" inventory management situations for propane customers in populated areas. Furthermore, it is increasingly difficult for marketers to build new storage facilities or ex-

pand existing facilities in the face of official and unofficial local opposition. Federal assistance in helping build confidence of the safety of propane installations would be most welcome.

The volume of customer storage in the field underscores the importance of filling customer storage prior to peak season demand. One reason low income customers may not fill their tanks prior to the winter heating season is because LIHEAP funds are unavailable until the winter months. Adjusting the eligible months for LIHEAP funds would make it easier for lower income families to be prepared for the winter months. During the warmer months, the need to heat a home is not salient in the minds of many customers. Currently, the Propane Education and Research Council (PERC) is restricted with regard to its customer communications. Lifting this restriction would allow a coordinated industry campaign aimed at educating consumers about winter readiness, including off peak season fills.

Question 3. What can we do to ensure a quick response to future crises?

Answer. One of the most important things we can do to avoid future crises is improve the collection of meaningful data on propane shipments and inventories. On May 16, 2014, NPGA wrote to the Energy Information Administration to request that EIA provide additional timely information on precisely this topic. NPGA prioritized its request in three areas: (1) reporting enhancements that NPGA believes can be made without requiring EIA to collect additional data or make fundamental changes in the way that the data is collected; (2) one-time and occasional studies to address specific questions or provide specific information on certain aspects of the propane market; and (3) data reports that would require new surveys or additional information to be collected on existing surveys. NPGA looks forward to working with EIA in these areas.

Question 4. What steps can we take to set up an early warning system for possible future propane shortages?

Answer. One lesson the propane industry learned this winter is that the information collected by the Energy Information Administration should be more detailed and be available on closer to a real-time basis in order to provide public and private stakeholders with a better and more accurate picture of market conditions. As previously mentioned, NPGA is in a dialogue with the EIA in regard to this. As an example, storage inventory could be reported on a level below the PADD level on which it is currently reported. Additionally, more detailed pricing data could be collected and reported on a more contemporaneous basis than it is now.

Improvements such as this would permit market participants and government stakeholders to have a more accurate picture of market conditions than they had this winter. It would then be much easier for the Secretary of Energy, the Administrator of the Energy Information Administration, the Secretary of Transportation, the Federal Energy Regulatory Commission, and other authorities to monitor markets for signs of potential energy emergencies. As winter approaches, improved data would permit these and other agencies to determine, at an early time, whether to invoke their various authorities to avert threats to essential human needs.

Question 5. Without giving out information that could give one business an unfair advantage over another, what options do we have for providing greater transparency, especially during an emergency, into when and where propane is being shipped?

Answer. At present the Interstate Commerce Act, a law with its roots more than a century ago, prohibits, pipelines from disclosing information as to shipments. It is clear that this provision, which may have been important in years past, has outlived its usefulness. In fact it proved to be impediment to market transparency this winter. It would be my recommendation that it be repealed. I recognize that there are legitimate and important competitive interests at stake, and it would be my recommendation that Congress empower the Federal Energy Regulatory Commission, using notice and comment rulemaking procedures, to determine the appropriate level of transparency on pipelines. The Commission has done so successfully in the past with regard to natural gas pipelines and electric transmission systems.

Responses of Joe Cordill to Questions From Senator Manchin

Question 1. Mr. Cordill, your testimony touches on restrictions placed on your industry by the Department of Commerce, which is an issue that has been raised by groups in my state of West Virginia. What are your thoughts on the Department of Commerce removing its restriction on the industry's check-off program? Could some of the industry's resources then be used to fund educational programs for residential propane customers to make sure they have information on how to best prepare for the winter?

Answer. Section 9 of the Propane Education and Research Act of 1996 (PERA) provides for periodic consumer grade propane price analyses compared with residential natural gas, residential electricity, and refiner price to end users of heating oil. The Commerce Department has for years interpreted the PERA law as a residential-only law, and so has performed these price analyses using EIA residential only propane price data. This was not the intention of Congress in enacting PERA, which specifically covers other propane sectors in the law's many provisions. Congress should insist that the Commerce Department acknowledge that PERA covers all sectors of propane usage, so that the existing data collected and reported by the EIA that reflects propane prices to all propane market segments is used to perform the DOC analysis required by Section 9 of PERA.

Doing this would allow the propane industry to use its own resources to communicate broadly with customers on matters related to winter heating season preparation. There are many programs that propane marketers offer to their customers to help them manage their supply and heating bills in the winter. Fixed price contracts, pre-buys, annual budget plans, and others are all viable options for consumers to consider. PERC could also utilize industry resources to implement programs designed to grow year-round demand for propane, such as in the vehicle and commercial lawn mowing segments. This would support development of additional storage and delivery infrastructure during off-peak seasons, which would help reduce the risks of a repeat of winter 2014 conditions.

Question 2. One of the other recommendations in your testimony is for Congress to amend the Interstate Commerce Act to require pipelines to demonstrate that the public interest is served before they discontinue service. Do you think this would help prevent a shortage like the one we had this winter?

Answer. Petroleum products pipelines, such as those that transport propane, do not need to seek abandonment authority from the Federal Energy Regulatory Commission when they cease a service or cease operation of facilities, which is entirely unlike the regulatory system for interstate natural gas pipelines. Rather, propane pipelines can cease providing a service simply by cancelling tariff sheets on file with the Federal Energy Regulatory Commission. In connection with this past winter, this system has permitted at least three pipelines that deliver propane toward the market areas to go out of service permanently. There is no doubt that these infrastructure changes contributed to the conditions seen in propane markets this winter. I certainly recognize that energy flows across North America are changing as a result of the dramatic influx of natural gas and natural gas liquids from shale formations. But granting the Federal Energy Regulatory Commission authority to pass upon proposed abandonments of service would ensure that essential human needs do not go unserved.

RESPONSES OF GARY FRANCE TO QUESTIONS FROM SENATOR FRANKEN

Question 1. One possible way to address future shortages would be to create a federal reserve of propane, similar to the Northeast Home Heating Oil Reserve, but predominantly serving the Midwest. What benefits would such a reserve provide for wholesalers, distributors, and consumers? What potential pitfalls must be avoided for the reserve to be most effective? If a federal reserve of propane were implemented, what options exist regarding where the reserves should be located? What role would primary, secondary, and tertiary storage play in implementing a reserve?

Answer. The National Propane Gas Association has formed a task force to consider a variety of options to ensure that our experience from the 2014 winter is not repeated. A strategic reserve is one option that we are evaluating. However, it is important to note that propane is different from the heating oil industry in that we are broadly spread throughout the country. There is not strong regional concentration in a single part of the country like fuel oil. There are some other options that NPGA is prepared to recommend that could make a difference right now, such as approval of the Finger Lakes storage facility in New York, better transparency of pipeline operations and data availability, and removing the Department of Commerce restriction on the Propane Education and Research Council to facilitate year-round demand, which will help create incentives for additional infrastructure.

Question 2. How can we incentivize propane users to (1) utilize larger tanks; and (2) fill storage tanks before the winter months?

Answer. When the industry formed the Supply and Infrastructure Task Force, one working group focused on steps that can be taken to educate propane customers on winter readiness. Customer storage, also called tertiary storage, is a critical part of the supply equation. According to a 2011 PERC study, an estimated 111 million barrels of customer storage exists in the field, nearly equaling the total amount of pri-

mary storage capacity in the U.S. The study also found the average tank size for customers was 400 gallons. Many customers want to utilize larger tanks, but cannot due to the increased cost of replacing their current tank. PERC is an organization in the propane industry that should be able to do significant consumer education outreach, except at this point PERC is restricted by the Department of Commerce, incorrectly in our view. Nevertheless, were we to eliminate the DOC restriction, PERC could do good work in this area. Larger tank sizes are most important in the agricultural sector such as corn farmers, who may only have one day of storage during peak demand. Most residential customers have at least 3 weeks to a month supply during peak demand.

One way the Federal Government could incentivize propane users to utilize larger tanks is to provide financial incentives towards the purchase of these tanks, either through rebates to customers or to marketers. The Federal Government could also provide tax incentives to customers who chose to increase their tank size.

In some instances, customer storage is discouraged through regulatory codes such as those posed in the International Fire Code Chapter 61. These regulations seek to restrict the amount of fuel stored on-site and place additional stress on the propane infrastructure. In essence, these regulations are promoting "just in time" inventory management situations for propane customers in populated areas.

The volume of customer storage in the field underscores the importance of filling customer storage prior to peak season demand. One reason low income customers may not fill their tanks prior to the winter heating season is because LIHEAP funds are unavailable until the winter months. Adjusting the eligible months for LIHEAP funds would make it easier for lower income families to be prepared for the winter months. During the warmer months, the need to heat a home is not salient in the minds of many customers. Currently, the Propane Education and Research Council (PERC) is restricted with regard to its customer communications. Lifting this restriction would allow a coordinated industry campaign aimed at educating consumers about winter readiness, including off peak season fills.

Question 3. What can we do to ensure a quick response to future crises?

Answer. One of the most important things we can do to avoid future crises is improve the collection of meaningful data on propane shipments and inventories. On May 16, 2014, NPGA wrote to the Energy Information Administration to request that EIA provide additional timely information on precisely this topic. NPGA prioritized its request in three areas: (1) reporting enhancements that NPGA believes can be made without requiring EIA to collect additional data or make fundamental changes in the way that the data is collected; (2) one-time and occasional studies to address specific questions or provide specific information on certain aspects of the propane market; and (3) data reports that would require new surveys or additional information to be collected on existing surveys. NPGA looks forward to working with EIA in these areas.

Question 4. What steps can we take to set up an early warning system for possible future propane shortages?

Answer. One lesson the propane industry learned this winter is that the information collected by the Energy Information Administration should be more granular and be available on closer to a real-time basis in order to provide public and private stakeholders with a better and more accurate picture of market conditions. As previously mentioned, NPGA is in a dialogue with the EIA in regard to this. As an example, storage inventory could be reported on a level below the PADD level on which it is currently reported. Additionally, more detailed pricing data could be collected and reported on a more contemporaneous basis than it is now.

Improvements such as this would permit market participants and government stakeholders to have a more accurate picture of market conditions than they had this winter. It would then be much easier for the Secretary of Energy, the Administrator of the Energy Information Administration, the Secretary of Transportation, the Federal Energy Regulatory Commission, and other authorities to monitor markets for signs of potential energy emergencies. As winter approaches, improved data would permit these and other agencies to determine, at an early time, whether to invoke their various authorities to avert threats to essential human needs.

Question 5. Without giving out information that could give one business an unfair advantage over another, what options do we have for providing greater transparency, especially during an emergency, into when and where propane is being shipped?

Answer. At present the Interstate Commerce Act, a law with its roots more than a century ago, prohibits, pipelines from disclosing information as to shipments. It is clear that this provision, which may have been important in years past, has outlived its usefulness. In fact it proved to be impediment to market transparency this winter. It would be my recommendation that it be repealed. I recognize that there

are legitimate and important competitive interests at stake, and it would be my recommendation that Congress empower the Federal Energy Regulatory Commission, using notice and comment rulemaking procedures, to determine the appropriate level of transparency on pipelines. The Commission has done so successfully in the past with regard to natural gas pipelines and electric transmission systems.

RESPONSE OF GARY FRANCE TO QUESTION FROM SENATOR MANCHIN

Question 1. Mr. France, AOPL say in its testimony that the reversal of the Cochin pipeline will not adversely affect propane supplies across the upper Midwest. What are your views on that?

Answer. The reversal of the Cochin Pipeline does not change the broad propane supply picture. The Canadian propane supply that has been transported to the Midwest on the Cochin Pipeline will continue to be available to the Market. In addition, propane supply from Canada, the Bakken, and other regions will continue to grow.

However, the issue with the Cochin Pipeline is not propane supply. The loss of the Cochin pipeline removes a major source of propane transportation into the Midwest during peak demand periods, and cannot easily be replaced. The loss of the Cochin is a transportation infrastructure issue rather than a supply issue. The Cochin currently provides much of the swing capacity to move propane into the upper Midwest, providing significant excess capacity to meet peak requirements, and direct access to major propane storage capacity in Alberta. Replacement of the Cochin requires replacement of the supply flexibility provided by the Cochin, as well as the supply delivered by the Cochin. The supply options currently available to replace the Cochin lack the flexibility to meet the peak season requirements provided by the Cochin.

A major study of the Cochin Pipeline reversal conducted by ICF International concludes that the role that the Cochin Pipeline played as the swing supplier of propane into the Midwest cannot be fully replaced prior to the 2014/15 winter. While propane suppliers and transporters have made significant efforts to expand the capability of moving propane into the Midwest, and propane production in the region is expected to continue to increase, the current capabilities are unlikely to be sufficient to meet demand in the Cochin market region if weather and grain drying conditions are similar to this last year. Unfortunately, at this time, it is largely too late to make additional physical system changes prior to the 2014/15 winter if arrangements are not already in place. There is currently a 24 month waiting time on new rail cars and a 15-18 month waiting time on new storage tanks.

ICF concludes that by 2015/16, transportation markets should be capable of replacing the Cochin, but continuing limits on access to Alberta storage may still create significant issues. While the market will adapt to the loss of the Cochin pipeline, the energy industry will not replace the flexibility provided by the pipeline. The Cochin pipeline provided sufficient excess propane supply capacity into the Midwest to meet a wide range of different demand patterns, and also provided access to major propane storage fields in Alberta. As a result, loss of the pipeline will lead to long term increase in propane supply and price volatility and uncertainty in the Cochin market region.

The short term supply uncertainty, and long term increase in supply and price volatility and uncertainty will change the way that many marketers plan for supply in the region.

RESPONSE OF GARY FRANCE TO QUESTION FROM SENATOR BARRASSO

Question 1. You testified that: "A primary factor leading to low [propane] inventories, particularly in the Midwest, was an unusually wet and large [corn] harvest that occurred late in the harvest season forcing farmers to use more propane than anticipated." You explained that: "Industry analysts estimate total grain-drying demand for propane at more than 300 million gallons in 2013, 235 million gallons above 2012 levels." You also state that: "Suppliers in the Midwest did not have the chance to rebuild propane inventories before the onset of an early and cold winter."

I understand that about 36 percent of last year's corn crop was used to produce ethanol to satisfy requirements under the Renewable Fuel Standard.

Has NPGA analyzed the extent to which the Renewable Fuel Standard contributed to low propane inventories in the Midwest this past fall and winter? If not, why not?

Answer. NPGA has not analyzed the extent to which the Renewable Fuel Standard may have contributed to low propane inventories in the Midwest this past fall and winter. NPGA has not undertaken an analysis of the various end-uses of corn in the United States, as they would at best be second-level or third-level causes

rather than proximate causes of the circumstances experienced this past winter in propane markets.

Thank you for the opportunity to elaborate on my hearing statement. Please don't hesitate to contact me with any additional questions.

RESPONSES OF NILS NICHOLS TO QUESTIONS FROM SENATOR FRANKEN

Question 1. Without giving out information that could give one business an unfair advantage over another, what options do we have for providing greater transparency, especially during an emergency, into when and where propane is being shipped?

Answer. Broadly speaking, the Interstate Commerce Act (ICA) provides the Commission with jurisdiction only over the terms and conditions of tariffs pursuant to which jurisdictional pipelines ship products such as propane, as well as the rates pipelines charge for such shipments.

Section 15(13) of the Interstate Commerce Act (ICA) expressly provides that "[i]t shall be unlawful for any common carrier . . . knowingly to disclose . . . any information concerning the nature, kind, quantity, destination, consignee, or routing of any property tendered or delivered to such common carrier for interstate transportation, which information may be used to the detriment or prejudice of such shipper or consignee, or which may improperly disclose his business transactions to a competitor . . . ." Consequently, the Commission does not possess knowledge regarding product shipments, including when and where propane is shipped.

The best option for providing greater transparency into propane supplies, including shipments, would be to encourage market participants to report that information to entities which routinely collect and disseminate such information, aggregated or masked as appropriate to protect market participants.

Question 2. In December, we knew we had a serious propane shortage, but the Federal Energy Regulatory Commission (FERC) did not take action until February 7, 2014. Why was the response delayed, and how can we improve it in the future?

Answer. Because it does not have a role in the propane commodity market, the Commission first became aware of propane supply issues in January 2014 primarily through contacts with governmental entities at the state and federal level who directly interact with issues of propane supply and demand. More specifically, the Commission became aware that supply issues were becoming significant at the end of January when it was contacted informally by the National Propane Gas Association (NPGA). NPGA stated it was working with a pipeline supplying, among other products, propane into the Midwest and Northeast to explore what could be done to increase propane shipments. Commission staff asked to be kept apprised of progress in those talks.

On February 6, 2014, NPGA filed a request that the Commission exercise emergency powers under the ICA to direct Enterprise TE Products Pipeline Company (Enterprise) to temporarily provide priority treatment to propane shipments from Mont Belvieu, Texas to locations in the Midwest and Northeast. The Commission issued a notice that it had received the filing on the same day and requested comments on an expedited basis. The next day, on February 7, 2014, the Commission determined that an emergency existed requiring immediate action and issued an order directing Enterprise to provide seven days of priority treatment for propane shipments. On February 10, 2014, Enterprise and NPGA submitted filings with the Commission requesting that the emergency order be extended for another seven days. On February 11, 2014, the Commission issued an order extending priority treatment for propane on Enterprise for an additional seven days. Thus, the Commission did not delay when it had evidence that an emergency existed.

Going forward, given that the Commission does not have a role in the propane commodity market, it can improve its awareness of market dislocations by increased interaction with relevant trade associations, and with state and federal entities who have greater awareness of the state of the market.

Question 3. What new authorities could help FERC prevent future propane shortages?

Answer. No new authorities are required because the Commission has ample emergency authority under section 1(15) of the ICA to address issues concerning the transportation of propane. Extending the Commission's authority into the propane supply or commodity market would be a radical departure from the historical common carrier regulation under the ICA and the lighter-handed regulation of oil pipelines mandated by the Energy Policy Act of 1992.

Question 4. What can we do to ensure a quick response to future crises?

Answer. Communication with relevant stakeholders is critical in terms of ensuring a quick response to future crises. Ensuring that the Commission interacts with trade associations and state and federal entities is key. Starting in the fall 2014, Commission staff intends to interact periodically with such entities to do what it can to understand conditions in the winter of 2015.

Question 5. What steps can we take to set up an early warning system for possible future propane shortages?

Answer. The frequent collection and dissemination of data regarding the amounts of propane in storage in regions of the country could provide the best early warning system. Frequent communications among state and federal entities could provide an additional layer of protection.

RESPONSES OF NILS NICHOLS TO QUESTIONS FROM SENATOR MANCHIN

Question 1. In Mr. Cordill's testimony, he recommends that FERC should require pipelines to justify all rate increases and regularly examine whether the "market-based" rates that some pipelines charge are appropriate. What is your opinion of this recommendation?

Answer. The ICA and the Commission's regulations do require pipelines to justify rate increases. The one exception is when a pipeline has been granted authority to charge market-based rates for a given movement of product. The determination that a pipeline can charge market-based rates is based on a determination that the pipeline lacks market power in a given market. Shippers paying market-based rates may challenge rates they believe to be unjust and unreasonable by filing a complaint with the Commission. Once a complaint is filed, the Commission investigates whether the market-based rate remains appropriate and rules on the complaint. In appropriate cases, the matter may be set for hearing before an Administrative Law Judge.

Question 2. Mr. Nichols, FERC has rules that prevent natural gas pipelines and electric transmission lines from favoring their marketing and trading affiliates. Why does it not have similar rules for propane pipelines?

Answer. The Commission's statutory mandate under the ICA is to ensure rates are just and reasonable for shippers, and ensure that pipelines provide services in a manner that is not unduly preferential or unduly discriminatory. The current oil pipeline regulatory regime, which is a result of the mandate of Congress in the Energy Policy Act of 1992, requires lighter-handed, more market-oriented regulation. In contrast, the electric and natural gas pipeline regulatory constructs designed by Congress represent a regulated monopoly approach, requiring the Commission to be more proactive to ensure all market participants are operating in a fair and equitable manner. As such, affiliate rules are appropriate in those circumstances. The ICA's requirement that pipelines must provide services in a manner that is not unduly discriminatory or preferential accomplishes the same objectives as affiliate rules. This is especially true given that oil and product pipelines are common carriers which must provide service to any shipper wishing to ship on the pipeline. This is in contrast to the electric and natural gas pipeline industries, which provide contract based services.

Question 3. Are the operations of propane pipelines as transparent as those of natural gas pipelines in terms of being able to see what is being shipped on the pipeline?

Answer. The operations of oil and product pipelines, including pipelines which ship propane exclusively or as one of many products, are not as transparent as interstate natural gas pipelines in terms of being able to see what is shipped on the pipeline.

There are several reasons for this. Interstate natural gas pipelines are viewed by Congress under the Natural Gas Act as regulated monopolies, and thus Congress' focus in establishing the NGA was on providing consumer protections. As such, certain shipper information is available through, for example, the Index of Customers each interstate natural gas pipeline must maintain to reflect contracts with shippers.

Congress took a different approach in enacting the Interstate Commerce Act. There, it determined that oil and product pipelines should function as common carriers and its focus was on creating a shipper protection statute. As relevant here, Congress sought to protect shippers under the ICA by specifically limiting the transparency of information as discussed in more detail in the answer to Question 1 posed by Senator Franken.

[Responses to the following questions were not received at the time the hearing went to press:]

QUESTIONS FOR JOHN ZIMMERMAN FROM SENATOR FRANKEN

Question 1. One possible way to address future shortages would be to create a federal reserve of propane, similar to the Northeast Home Heating Oil Reserve, but predominantly serving the Midwest. What benefits would such a reserve provide for wholesalers, distributors, and consumers? What potential pitfalls must be avoided for the reserve to be most effective? If a federal reserve of propane were implemented, what options exist regarding where the reserves should be located? What role would primary, secondary, and tertiary storage play in implementing a reserve?

Question 2. How can we incentivize propane users to (1) utilize larger tanks; and (2) fill storage tanks before the winter months?

Question 3. What can we do to ensure a quick response to future crises?

Question 4. What steps can we take to set up an early warning system for possible future propane shortages?

Question 5. Without giving out information that could give one business an unfair advantage over another, what options do we have for providing greater transparency, especially during an emergency, into when and where propane is being shipped?

QUESTION FOR JOHN ZIMMERMAN FROM SENATOR MANCHIN III

Question 1. Mr. Zimmerman, in your testimony, you mention four factors that led to this crisis, including communication. My state of West Virginia is home to a number of small propane suppliers and in emergencies, communication is necessary. What do you think we can do at the federal level to increase and improve communication to prevent a shortage like this from happening again?

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